

PREPARED FOR:

Honeywell

HONEYWELL INTERNATIONAL INC.

PREPARED BY:

amec

AMEC E & I, INC.
1787 SENTRY PARKWAY WEST, SUITE 120
BLUE BELL, PA 19422

May 2, 2012

Copy:-

- report text
- figures 1 & 2
- Appendix B
- Appendix D
- Appendix F



May 2, 2012

Russell Fish
U.S. Environmental Protection Agency
Office of Remediation
3LC20
1650 Arch Street
Philadelphia, PA 19103-2029

Re: Storm Sewer Maintenance Cleaning Interim Measure
Draft Final Report
Honeywell Delaware Valley Works
Claymont, Delaware

Dear Russell:

On behalf of Honeywell International Inc. (Honeywell), AMEC Environment & Infrastructure, Inc. (AMEC) is pleased to submit three copies of the Draft Final Report for the Storm Sewer Maintenance Cleaning Interim Measure conducted at the Honeywell Delaware Valley Works in Claymont, Delaware (Site). We look forward to your review and approval.

If you have any questions or require additional information, please contact me on my direct line at 610-877-6154. Additionally, please take note of my new general contact information provided below.

Sincerely,
AMEC Environment & Infrastructure, Inc.

A handwritten signature in black ink, appearing to read "R. Karr", with a long horizontal flourish extending to the right.

Richard C. Karr, P.G.
Associate

cc: Steve Coladonato – Honeywell
Bryan Ashby - DNREC

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FIGURES

Figure 1 - Location of Honeywell Storm Sewer Systems

Figure 2 – Location of General Chemical Storm Sewer Systems

APPENDICES

Appendix A – June 22, 2011 email from Russ Fish (USEPA)

Appendix B – Solid Hazardous Waste Disposal Profiles

Appendix C – Solid Hazardous Waste Disposal Manifests

Appendix D – Solid Non-hazardous Waste Disposal Profiles

Appendix E – Solid Non-hazardous Waste Disposal Manifests

Appendix F – Waste Water Disposal Profile

Appendix G – Waste Water Disposal Manifests

EXECUTIVE SUMMARY

Approximately 10,480 LF of storm sewer lines located on the Honeywell International Inc. (Honeywell) Delaware Valley Works (DVW) and on the adjacent General Chemical Corp. (GCC) property leading to the outfall at the confluence box at the head of the sluiceway on the GCC property have been jet cleaned and video inspected. During the project, approximately 254 tons of accumulated sediment and debris were removed by the cleaning process. Approximately 117,700 gallons of cleaning water was recovered and treated by filtration through 1µm pore filter bags and carbon absorption.

Following cleaning operations, storm sewer lines greater than 10-inches diameter were inspected via video survey to verify removal of accumulated sediment. For lines less than 10-inches diameter, cleaning was verified by visual observation of the clarity of recovered rinsate by the subsurface utilities engineer overseeing the work.

Some laterals entering the East System – East Section on the DVW were deemed unnecessary by Honeywell and were closed in place. Closure consisted of excavation down to sever the line and backfill of the excavation with concrete.

All solids collected from the cleaning operations were dewatered and mixed with a polymer to ensure passing a paint filter test for transportation and disposal. Processing of solids took place in sludge boxes for primary dewatering and roll off boxes for addition and mixing of polymer. Each roll off was tested for full TCLP list of parameters (VOCs, acid/base/neutral SVOCs, PCBs, pesticides, herbicides, metals) and the Pennsylvania Form U parameter list. Non-hazardous solids were transported for disposal at Waste Management G.R.O.W.S. landfill in Morrisville, Pennsylvania. Hazardous waste solids were transported for incineration disposal to Heritage-WTI in East Liverpool, Ohio and Ross Environmental in Grafton, Ohio.

Final Report
Maintenance Storm Sewer Cleaning
Delaware Valley Works

Honeywell

Treated cleaning water was transported to the Delaware County Regional Authority (DELCORA) facility in Chester, Pennsylvania for discharge.

1.0 INTRODUCTION

AMEC E& I, Inc. (AMEC) is submitting this Final Report documenting the Maintenance Storm Sewer Cleaning on the Honeywell (Honeywell) Delaware Valley Works (DVW) and on portions of the adjacent General Chemical Corp. (GCC) property, both located at 6100 Philadelphia Pike in Claymont, Delaware (Site). This Final Report was prepared to document the completion of the sewer cleaning project initiated in August 2011.

BACKGROUND

In August 2011, in response to sample results indicating contaminated sediments in manholes, Honeywell initiated a maintenance storm sewer cleaning project to remove accumulated sediment from the DVW storm sewer system and a main trunk line leading from the DVW across the GCC property to the confluence box discharge point at the upper end of the sluiceway located on the GCC property. The DVW and GCC plant are serviced by an extensive storm sewer system constructed beginning in the 1920s. Typical storm sewer construction consists primarily of 24-inch to 36-inch I.D. cast concrete pipe between brick manhole risers with smaller diameter (down to approximately 4 inches I.D.) terra cotta, concrete and more recent PVC laterals to catchments.

A letter work plan describing the scope of the maintenance cleaning of storm sewers interim measure at the DVW was submitted to USEPA on June 2, 2011. Concurrence with the work scope and methodology was provided via e-mail by USEPA on June 22, 2011 (Appendix A). Figure 1 and Figure 2 depict the storm sewer lines on the DVW and on the GCC property that were cleaned.

2.0 METHODOLOGY

The objective of this interim measure was to remove contaminated materials present in the storm sewers. This was accomplished by jet cleaning the storm sewers to substantially remove all accumulated sludge, sediment and debris from the storm sewer pipes and accessible associated laterals. Verification of the objective was achieved by video inspection of the storm sewer pipe interiors following cleaning or visual observation of cleaning rinsate.

JET CLEANING

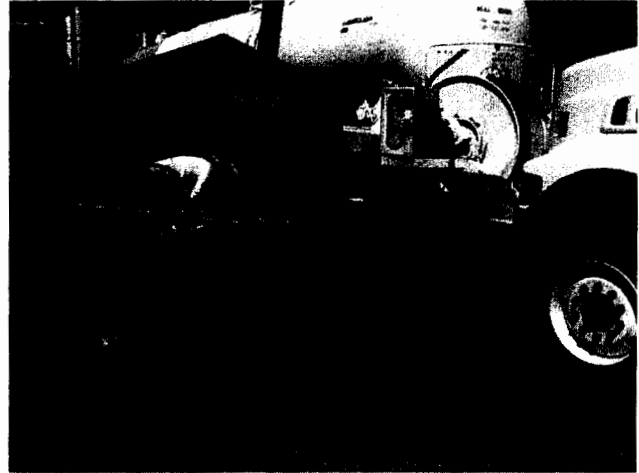
Generally, the cleaning was conducted in segments from manway to manway using a jet/vac truck beginning at the upstream end of the storm sewer system and proceeding in a downstream direction. Cleaning of storm sewer pipe segments downstream of segments that were not yet cleaned was not allowed. The cleaning process utilized a jet cleaning apparatus with rearward facing nozzles deployed into a downstream manway. The jet cleaning utilized a 2000 psi 80 gpm spray that dislodged sediment and debris within the line, sweeping it toward the downstream manway where it was removed by a high flow vacuum for transport and handling.

Each segment of the storm sewer system between manways or other access points was isolated for cleaning by placing an inflatable plug in the line at a location downstream of the downstream manway. With the plug in place, liquids and mobilized solids were prevented from migrating below the isolation point during the cleaning process.

The isolated line segment was jet cleaned to remove accumulated sediment and debris using the jet to sweep it toward the downstream manway where it was removed. Occasionally, this process was modified due to the large volume of accumulated materials in the line or due to subsidence noted in the line. Where large volumes of material were encountered, a “step-cleaning” procedure was followed. Step cleaning involved cleaning 10-foot to 20-foot increments, followed by video inspection to ascertain the pipe conditions and

degree of removal achieved. Upon satisfactory results, the process was repeated for the next 10-foot to 20-foot interval. Where subsidence was observed, the cleaning process was conducted from both upstream and downstream of the subsidence area to minimize the distance required to move the sediment to a manway for removal.

A high volume flow vacuum, generally deployed at the downstream manway of the segment of the storm sewer pipe being cleaned, was used to capture and remove all liquids, solids and debris dislodged by the jet cleaning process. When the reservoir on the jet/vac truck was filled with solids and cleaning water, a second vac truck was typically used to decant



**Cleaning operations showing
vac and cleaning jet in manway**

collected cleaning water for transport to the staging area. This allowed the jet/vac truck to remain on station and complete the cleaning of the line segment. Collected water was handled and treated as described below. When the collected solids reached the capacity of the vac truck, the truck was driven to the staging area to dump the solids in a sludge box for dewatering.

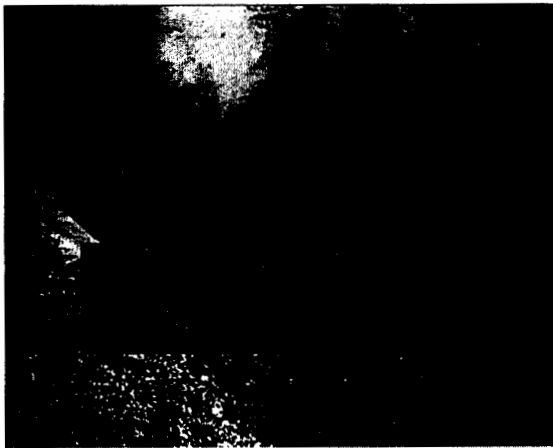
Jet cleaning utilized clean potable water obtained from the Site fire suppression network. Once a sufficient volume of cleaning water was accumulated, it was treated by particulate and carbon filtration, and stored in seven 22,000 gal frac tanks for recycling in the cleaning process or stored for transportation and disposal.

VIDEO SURVEY

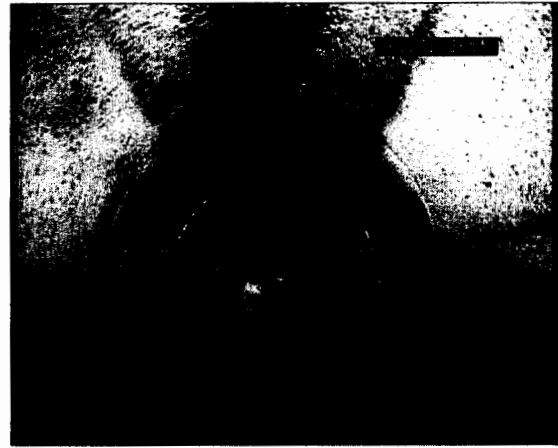
On satisfactory completion of the jet cleaning, a video inspection of the full length of the cleaned storm sewer segment was conducted to verify that the cleaning was complete and the video images were recorded to provide a visual record. A high resolution video camera system mounted on a small self-propelled tractor was utilized for the video inspection. The

camera was inserted in the line and traversed from manway to manway recording images. Video inspections were monitored live and recorded on DVD.

Generally, lines smaller than 10-inches I.D. were not video inspected because the size of the video camera system prevented its insertion and operation in lines of that size. It was found that lines less than that diameter were easily cleaned with the jet cleaning apparatus and were often constructed of PVC which enhanced the effects of the jet cleaning. Consequently, the subsurface utilities engineer overseeing the cleaning operations verified the satisfactory cleaning of these diameter lines visually by observing the clarity and lack of solids in the rinsate.



Typical surcharge of sediment in pipe.
View shows approximately 50% of cross-section filled by sediment in situ.



Typical pipe following jet cleaning, Note accumulation of water in pipe sag.

During the video inspections, a Subsurface Utilities Engineer (SUE) and video technician monitored the video feed in real time making notations of features and general condition of the storm sewer pipes. Where structural damage was observed, an annotation was added to the video describing the location in feet from the nearest man way and the type and severity of the damage. Additionally, the SUE maintained field notes describing the conditions of the pipes. Typical observations recorded as annotations might include line

sags, cracks, joint offsets, deformation from round cross-section, and notations of the cleaning process methods (step-cleaned).

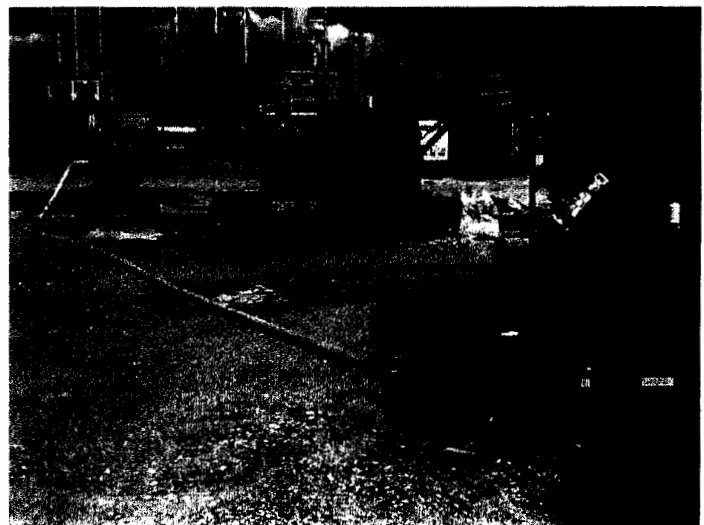
SOLIDS HANDLING AND DEWATERING

All collected solids and liquids were transported to the staging area and placed in a sludge box for primary gravity dewatering. The sludge box was lined with a 1 μ m pore fabric bag liner and was constructed with a false bottom. Solid/liquid mixtures placed in the sludge box were allowed to gravity drain, and liquids draining into the space below the false bottom were pumped into the frac tank system for further treatment and handling.

The resulting partially dewatered solids were transferred to lined hazardous waste roll off boxes and further dewatered by addition and mixing of a powdered polymer. Sufficient polymer was added to the partially dewatered solids to ensure compliance with 40 CFR 264.314 for free liquids and pass a paint filter test (USEPA Method 9095A). Dewatered solids in the roll off boxes were sampled for laboratory analysis to profile the waste for disposal. Laboratory analysis consisted of TCLP analysis for VOCs, acid/base/neutral SVOCs, PCBs, pesticides, herbicides, metals, and the Pennsylvania Form U parameters.

LIQUIDS HANDLING AND TREATMENT

Generally all cleaning water was collected, stored in frac tanks, treated by filtration and carbon contact, and reused for the cleaning or stored until transportation and disposal at the Delaware County Regional Authority (DELCORA) treatment facility in Chester, Pennsylvania. Seven (7) 22,000 gallon frac tanks for storing and treating cleaning water were placed within temporary secondary containment areas erected in a designated staging area on the DVW.



**Solids/Liquids processing area
showing sludge box, pump and
frac tank**

Treatment of cleaning water consisted of filtration using 1µm filter bags to remove particulates and carbon absorption to remove organic chemicals. Prior to discharge, each frac tank was sampled and tested for VOCs, DDx, metals, and other general water quality parameters. Where elevated organics were observed in the treated cleaning water, it was retreated until concentrations were reduced sufficiently to allow discharge.

Non-cleaning storm water and groundwater resident within a segment of the storm sewers isolated for cleaning was evacuated by pumping from the segment and discharged into the nearest storm sewer access point downstream prior to commencement of the cleaning process. During storm events, when flows could be accommodated, storm water influent into the system was removed from upstream of the active cleaning operations segment and discharged in a similar fashion. No treatment was required as storm water and resident water prior to cleaning was consistent with the GCC discharge permit.

3.0 IMPLEMENTATION

SCHEDULE OF IMPLEMENTATION

Contractor equipment mobilization to the DVW was conducted on August 15 – 16, 2011, with cleaning operations commencing on August 17, 2011. Cleaning operations concluded on November 1, 2011. Transport and disposal of treated cleaning water to the DELCORA was completed on December 23, 2011. Demobilization and transport and disposal of collected solids were completed on April 3, 2012.

PROBLEMS ENCOUNTERED

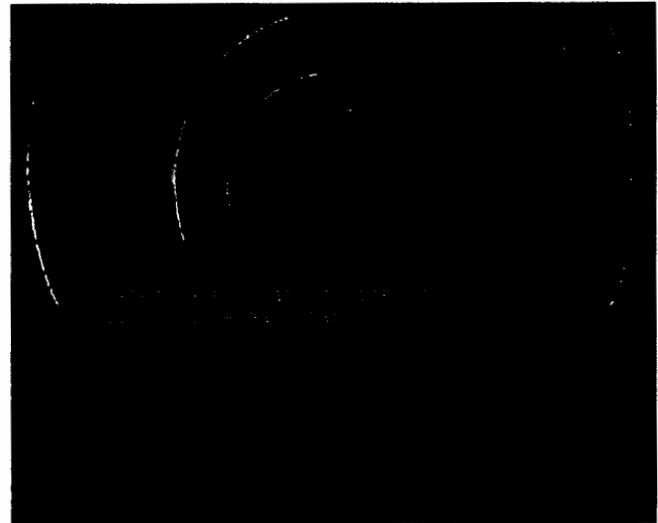
A number of problems were encountered during the cleaning operations that resulted in an extension of the project schedule by approximately six weeks. They included weather conditions and unforeseen conditions within the sewer systems as discussed below.

Storm sewer layouts depicted on historical drawings examined during the planning stage of the work were inaccurate. A number of unmapped lines were identified over the course of the work. Conversely, several lines depicted on historical drawings did not actually exist. Figures 1 and 2 depict the actual layout of the system as identified during the cleaning operations.

Several manways have been concreted or asphalted over at the ground surface. In such cases, lines were cleaned from adjacent accessible manways.

Storm events caused delays several times during the cleaning operations as they resulted in flooded lines that prevented cleaning or video inspection. Storm flows that interrupted cleaning operations were greater than the available diversion and dewatering pumping capacity. In particular, the strike of Hurricane Irene on August 27, 2011 and the subsequent Tropical Storm Lee strike on September 6, 2011 resulted in a complete shutdown of cleaning operations for several days.

At several locations, subsidence of a portion of the sewer line due to age and surface loads created “sags” where water accumulated making video inspection impossible due to submergence of the camera while traversing that portion. In most cases this was alleviated by pumping to remove the water or by sweeping the water out using the jet vac.



At several locations, unmapped structural blockages were encountered in the lines. These ranged from historical installed concrete plugs designed to plug the line, to one location where a process sewer line passed through the diameter of a storm sewer line. In all cases except where the line was plugged, cleaning was completed through the entire line.

**Sag in pipe due to settlement
where water pools.**

Cleaning operations at the lower end of the system, just above the confluence box on the GCC property, were flooded by a “King Tide” that occurred on October 27, 2011. These flooding conditions occur twice annually. In this instance, flooding conditions lasted for several days and required several additional days of pumping to drain the sluiceway, confluence box and the lower sections of these lines.

Honeywell determined that several laterals discharging to the East System – East Section line and East System – West Section line (Figure 1) were no longer necessary. In those instances, the laterals were closed in place by excavation down adjacent to the manway, severing the line and backfilling the excavation with concrete.

The approved work plan for the project anticipated discharge of the treated cleaning water to the DVW process sewer system. Because of delays in approval by the New Castle systems (the ultimate receiver of the discharge), Honeywell elected to transport and dispose of the cleaning water offsite at the DELCORA facility as non-hazardous waste water.

VIDEO RECORDS

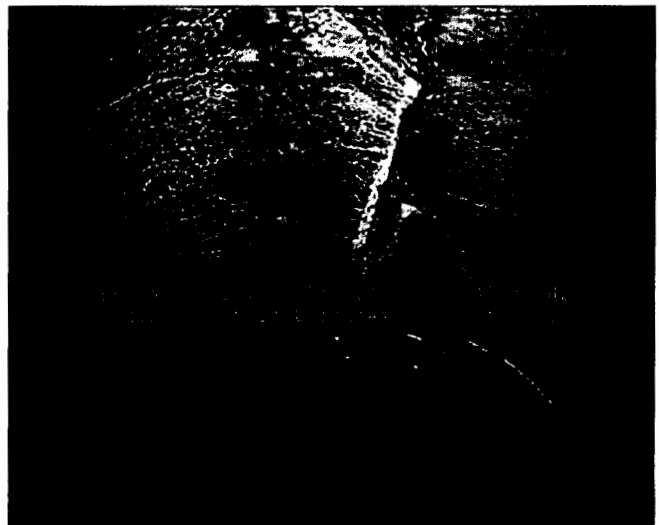
Upon completion of the jet cleaning of sewer lines, a video inspection of the line was recorded. Video images were annotated with embedded graphics describing line conditions or visually identifiable damage to the line and other features of note. During video image recording, still images were captured to notate observations of the sewer lines. The DVW Maintenance Department will maintain the video record and logs of observations for each segment of sewer line cleaned during this project in the department files.

Lines smaller than 10-inches I.D. were not video inspected because the size of the video camera system prevented its insertion and operation in those lines. Confirmation of satisfactory cleaning was made by visual observation of the absence of fines and turbidity in the rinsate.

Video surveys were terminated when obstructions were met in the lines that prevented the camera tractor from maneuvering beyond the obstruction. Whenever possible the survey was resumed from the other end of the line and surveyed to the obstruction. Examples of obstructions include historical patches that created bottlenecks, collapsed area, and process sewer lines passing through the diameter of the storm sewer lines.

DAMAGED LINES

In general, the condition of the storm sewers observed during video inspection was exceedingly good considering the age of the system. No damages were identified that precluded the storm sewer from serving its intended function. Video inspection identified several instances of minor structural damage such as cracked pipes, line sags, minor offsets at pipe joints and deformations from circular cross-section. All were documented and logged.



POST-CLEANING INLET PROTECTION MEASURES

After storm sewers were cleaned, a temporary protective measure of wrapping filter fabric around the inlet cover was installed to prevent sediment and debris from entering the storm sewer system. Select inlet manways near DVW Building 17 were fitted with bag filters. Inlet manways not located in paved areas were surrounded with hay bales and silt fences. The Central Road on the DVW was swept and a super silt fence was installed to prevent sediment and debris from reaching paved areas. After cleaning operations concluded the temporary filter fabric wrapped around the inlet manhole covers was removed.

SOLIDS DISPOSAL

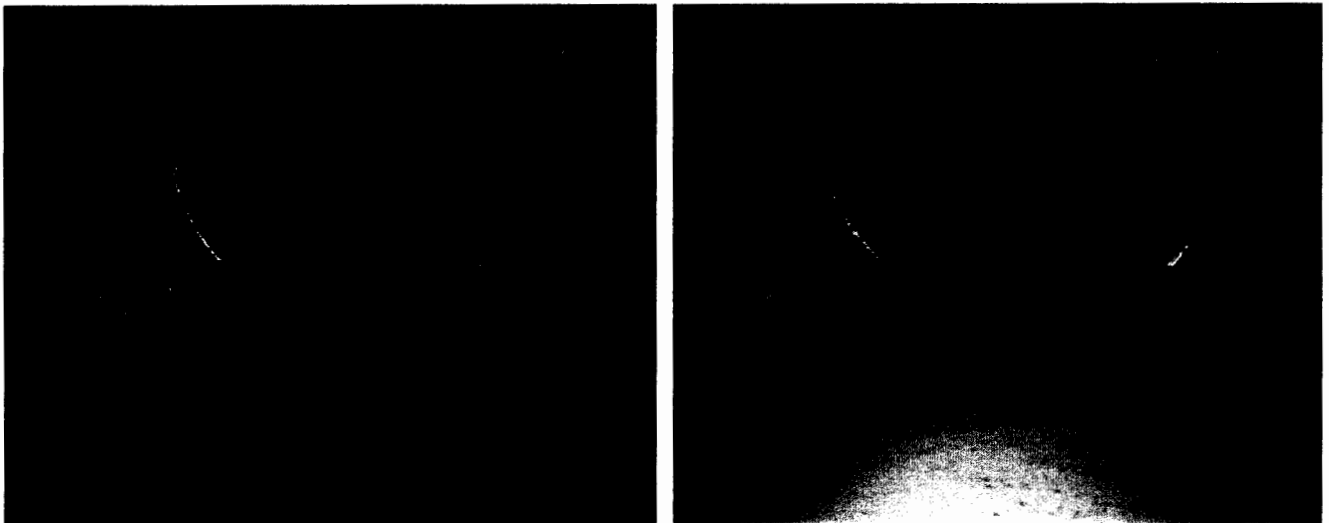
Solids failing the TCLP tests for any parameter and classified as RCRA Hazardous by Characteristic were transported to the Heritage-WTI facility in East Liverpool, Ohio and Ross Environmental in Grafton, Ohio for incineration disposal. Approximately 177 tons of solids were classified as Hazardous and disposed by incineration. Appendix B and C are hazardous waste profiles submitted to the facilities and disposal manifests, respectively. Approximately 76 tons of solids were classified as Non Hazardous. Solids classified as non-RCRA Hazardous contaminated solid materials were transported and disposed at the Waste Management G.R.O.W.S. facility in Falls Township, Pennsylvania. Appendix D and E are non-hazardous waste profiles submitted to G.R.O.W.S. and disposal manifests, respectively. Solids were transported offsite between October 27 and April 3, 2012.

LIQUIDS DISPOSAL

Approximately 117,700 gallons of treated cleaning water was stored in frac tanks on site until accepted for disposal, and then transported to and disposed at the DELCORA facility in Chester, PA. Prior to discharge, each frac tank was sampled for VOCs, pesticides and metals, and laboratory analysis confirmed that the water was consistent with the non-hazardous profile approved by DELCORA. The wastewater non-hazardous disposal profile and disposal manifests are provided as Appendix F and G, respectively

4.0 CONCLUSIONS

Approximately 10,480 LF of storm sewer lines located on the Honeywell DVW and on the adjacent GCC property leading to the outfall at the confluence box at the head of the sluiceway on the GCC property have been jet cleaned and video inspected. In addition, selected laterals entering the East System – East Section on the DVW were deemed unnecessary by Honeywell and were closed in place. Closure consisted of excavation down to sever the line and backfill of the excavation with concrete. All storm sewer lines flowing to the outfall at the confluence box have been cleaned.



Typical pipe after cleaning. Note markings indicating depth of sediment prior to cleaning.

Video records and hard copy logs of pipe conditions observed during the video inspection were created during the cleaning process. These records are maintained in the files of the DVW Maintenance Dept.

All collected solids were transported off site and disposed as either non-hazardous waste at Waste Management's G.R.O.W.S. Landfill in Morrisville, PA or as hazardous waste at Heritage-WTI's facility in East Liverpool, Ohio and Ross Environmental in Grafton, Ohio. All collected cleaning water was treated onsite to remove organics and particulates, transported to the DELCORA facility in Chester, PA and discharged. Disposal was

completed and demobilization of all equipment and personnel from the job site was completed on April 3, 2012.

HERITAGE ENVIRONMENTAL SERVICES, LLC
WASTESTREAM SURVEY FORM
(877)436-8778



www.heritage-enviro.com

Please review instructions before completing this form.

Heritage Use Only	
Quote #:	WS#:
Business Type: Repeatable: <input type="checkbox"/> Non-Repeatable: <input type="checkbox"/>	
Product Code:	Price:

Preferred TSD Location *:	Charlotte, NC <input type="checkbox"/>	Coolidge, AZ <input type="checkbox"/>	Indianapolis, IN <input type="checkbox"/>	Kansas City, MO <input type="checkbox"/>	Roachdale, IN: Hazardous Landfill <input type="checkbox"/> Non-Hazardous Landfill <input type="checkbox"/>	VRAWTI <input type="checkbox"/>
Service Location *:	Albany, NY <input type="checkbox"/>	Blaine, MN <input type="checkbox"/>	East Liverpool, OH <input checked="" type="checkbox"/>	Hammond, IN <input type="checkbox"/>	Lemont, IL <input type="checkbox"/>	
	Louisville, KY <input type="checkbox"/>	Signal Hill, CA <input type="checkbox"/>	St. Louis, MO <input type="checkbox"/>	Toledo, OH <input type="checkbox"/>	Tulsa, OK <input type="checkbox"/>	

1. GENERATOR INFORMATION (Heritage#) *	
Generator Name	Honeywell International Inc.
Address	6300 Philadelphia Pike
City, State, Zip	Marcus Hook, PA 19061
Tech. Contact Name	Rus Davis
Phone	302-791-6748 Fax
24 Hour Emergency Number	302-791-5800
E-mail Address	russell.davis2@honeywell.com
US EPA ID Number	PAD 981739758
State ID Numbers	
Status	LQG <input checked="" type="checkbox"/> SQG <input type="checkbox"/> CESQG <input type="checkbox"/> Non-hazardous <input type="checkbox"/>

2. BILLING INFORMATION (Heritage#) *	
Customer Name	Honeywell International Inc.
Address	101 Columbia Road
City, State, Zip	Morristown, NJ 07960
Contact Name	Chris French
Phone	(973) 455-4131 Fax
E-mail Address	chris.french@honeywell.com
3. MANIFEST MAIL ADDRESS (If different from generator)	
Contact Name	Rus Davis
Company Name	Honeywell International Inc.
Address	6100 Philadelphia Pike
City, State, Zip	Claymont, DE 19703

4. Generator SIC Code 325188, 325199	If 3312, do you perform Coke Oven Byproduct Recovery Operations? Yes <input type="checkbox"/> No <input type="checkbox"/>	If 28__, 2911, 3312, or 4953, what is the Total Annual Benzene (TAB) in Megagrams/year?
--------------------------------------	---	---

5. Common Name	Soil
6. Process Generating Waste	Storm sewer cleaning
7. DOT Description * (if available)	RQ NA3077, Hazardous Waste, Solid, N.O.S. (tetrachloroethylene, trichloroethylene, lead, DDT), 9, PG III
8. Identify US EPA waste codes	D040, D039, D008
9. If D001-D043, are any Underlying Hazardous Constituents (UHCs) present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> If yes, list in Section 13.	
10. If F001-F005, or F039, list the F-listed hazardous constituents in Section 13.	
11. US EPA Form Code *	US EPA Source Code *
12. Identify state waste codes	

13. Waste Composition: Using specific chemical names and/or descriptions of waste composition, list all constituents present in the wastestream, and identify those that are underlying hazardous constituents (UHCs), or F001-F005/F039 hazardous constituents. Attach available analysis or MSDSs. Total composition must equal or exceed 100%.

Constituents	Range	Units	UHC?	F-Listed?
Soil Solids	90-99	%	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>
DDT	0-4	%	Yes <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>
tetrachloroethylene	<0.001	%	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>
trichloroethylene	<0.001	%	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>
lead	<0.001	%	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>
Debris (i.e., wood, concrete, brick)	<2	%	Yes <input type="checkbox"/>	Yes <input type="checkbox"/>
			Yes <input type="checkbox"/>	Yes <input type="checkbox"/>

14. Color	Black	Appearance	moist	Odor	slight organic.
15. 15a. Chemical Properties		15b. Physical Properties at 70°F			
Flash	< 73 <input type="checkbox"/>	BTU/lb	< 2,000 <input checked="" type="checkbox"/>	Solid	<input checked="" type="checkbox"/>
Point (F°)	< 100 <input type="checkbox"/>		2,000-6,000 <input type="checkbox"/>	Liquid	<input type="checkbox"/>
	100-140 <input type="checkbox"/>		6,000-10,000 <input type="checkbox"/>	Sludge	<input type="checkbox"/>
	141-200 <input type="checkbox"/>		> 10,000 <input type="checkbox"/>	Semi-solid	<input type="checkbox"/>
	> 200 <input checked="" type="checkbox"/>			Powder	<input type="checkbox"/>
				Gas	<input type="checkbox"/>
Bolling	< 100 <input type="checkbox"/>	pH	5-7.5	% Solids	100
				% Liquids	0

	Point (F°) > 100	<input checked="" type="checkbox"/>	Range	Note: * These sections will be completed by Heritage if left blank.
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Common Name (same as Item #5):

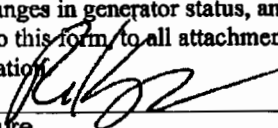
16. Check all that apply. Marking any of these may require additional documentation or follow-up information.			
16a. Aerosols <input type="checkbox"/> Metal Powders <input type="checkbox"/> Air Reactive <input type="checkbox"/> Oxidizer <input type="checkbox"/> Ammonia <input type="checkbox"/> Pathogen <input type="checkbox"/> Asbestos <input type="checkbox"/> Pesticide <input checked="" type="checkbox"/> Autoclitizable <input type="checkbox"/> Polymerizable <input type="checkbox"/> Biological <input type="checkbox"/> Pyrophoric <input type="checkbox"/> Carcinogen <input type="checkbox"/> Radioactive <input type="checkbox"/> Chelating Agent <input type="checkbox"/> Sanitary <input type="checkbox"/> Compressed Gas <input type="checkbox"/> Sharps <input type="checkbox"/> Dioxins <input type="checkbox"/> Shock Sensitive <input type="checkbox"/> Etiological <input type="checkbox"/> Spontaneously <input type="checkbox"/> Explosive <input type="checkbox"/> Combustible <input type="checkbox"/> Herbicide <input type="checkbox"/> Sulfide <input type="checkbox"/> Infectious <input type="checkbox"/> Temperature <input type="checkbox"/> Insecticide <input type="checkbox"/> Control Required <input type="checkbox"/> Lab Pack <input type="checkbox"/> Temperature <input type="checkbox"/> Medical <input type="checkbox"/> Sensitive <input type="checkbox"/> Metal Fines <input type="checkbox"/> Water Reactive <input type="checkbox"/>	16b. Used oil? (per 40 CFR 279) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Used oil mixed with hazardous waste? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Total Halogens (TX) concentration? < 1000 PPM <input checked="" type="checkbox"/> > 1000 PPM <input type="checkbox"/>	16c. PCBs? (per 40 CFR 761) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, PCB concentration? < 50 PPM <input type="checkbox"/> > 50 PPM <input type="checkbox"/> Greater than 50 PPM source? Yes <input type="checkbox"/> No <input type="checkbox"/>	
16d. Does this material require any special handling? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, explain: _____			
16e. Volatile Organic Compound > 500 PPM? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Subject to Subpart CC? (per 40 CFR 265.1080-1091) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		16f. Do any exclusions/exemptions apply? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, note the exclusion/exemption: _____	
16g. Generated from electroplating process? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		16h. Additional Comments: _____	

17. Transporter: Heritage Transport <input type="checkbox"/> Other <input checked="" type="checkbox"/> (Complete below) Transporter Name Lewis Environmental, Inc. Address 101 Carol Drive City, State, Zip New Castel, DE 19720 Contact/Phone Tom Schuitz / (302) 869-6010 ext. 223 US EPA ID No. _____	18. Packaging: Bulk Liquid <input type="checkbox"/> Bulk Solid <input checked="" type="checkbox"/> Cu Yd Bag/Box <input type="checkbox"/> Cylinder <input type="checkbox"/> Drum <input type="checkbox"/> Tote (Metal) <input type="checkbox"/> Tote (Poly) <input type="checkbox"/>	Size: 30 ton	19. Volume: 2/Year 2/Shipment
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20. Check or List Attachments: Lab Data ☒ MSDS ☐ Cylinder Form ☐ Packing List ☐ Other (list) ☒ *Analytics Summary Table*

21. CERTIFICATION Sign and date the certification.

I hereby certify that I am an authorized agent of the generator, and warrant on behalf of the generator, that all information submitted herein and attached documentation contains true, accurate and complete descriptions of this material. Any sample submitted for analysis is representative of the material being offered for approval. All relevant information regarding known or suspected hazards in the possession of the generator has been disclosed. I will notify Heritage Environmental Services, LLC or Von Roll America, Inc. of any changes in generator status, any information on this form, or any information on the attachments. This certification and signature apply to this form, to all attachments checked in section 20, and to the land disposal restriction notification (LDR) generated from this information.

Signature 	Printed Name <u>RICHARD KARR</u>	Date <u>10/19/2011</u>	Company <u>AMEC E&I Inc.</u>
---	----------------------------------	------------------------	----------------------------------

22. COMPLETE THIS SECTION FOR NON-HAZARDOUS MATERIAL BEING MANAGED TO A NON-HAZARDOUS PROCESS (EXAMPLE: SUBTITLE D LANDFILL or MASS-BURN)			
22a. Does this waste exhibit the chemical characterization of an oxidizer? Yes <input type="checkbox"/> No <input type="checkbox"/>			
22b. Is this waste a listed waste? (U, P, K, or F codes) Yes <input type="checkbox"/> No <input type="checkbox"/>		22c. This waste is not characteristically hazardous for D001-D043 based on attached lab data (mark LD), attached MSDS (mark MSDS), or generator knowledge (mark GK).	
D001 (Ignitability) _____ D002 (Corrosivity) _____ D003 (Reactivity) _____ TCLP METALS D004 Arsenic _____ D005 Barium _____ D006 Cadmium _____ D007 Chromium _____ D008 Lead _____ D009 Mercury _____ D010 Selenium _____ D011 Silver _____	TCLP VOLATILES D018 Benzene _____ D019 Carbon Tetrachloride _____ D021 Chlorobenzene _____ D022 Chloroform _____ D028 1,2-Dichloroethane _____ D029 1,1-Dichloroethylene _____ D035 Methyl Ethyl Ketone _____ D039 Tetrachloroethylene _____ D040 Trichloroethylene _____ D043 Vinyl Chloride _____	TCLP SEMI-VOLATILES D023 o-Cresol _____ D024 m-Cresol _____ D025 p-Cresol _____ D026 Cresol _____ D027 1,4-Dichlorobenzene _____ D030 2,4-Dinitrotoluene _____ D032 Hexachlorobenzene _____ D033 Hexachlorobutadiene _____ D034 Hexachloroethane _____ D036 Nitrobenzene _____ D037 Pentachlorophenol _____	D038 Pyridine _____ D041 2,4,5-Trichlorophenol _____ D042 2,4,6-Trichlorophenol _____ HERBICIDES & PESTICIDES D012 Endrin _____ D013 Lindane _____ D014 Methoxychlor _____ D015 Toxaphene _____ D016 2,4-D _____ D017 2,4,5-TP (Silvex) _____ D020 Chlordane _____ D031 Heptachlor _____



10/19/11

Technical Report for

Mactec

Honeywell-Claymont (North Plant) Route 13, Claymont, DE

3485110440

Accutest Job Number: JA88141

Sampling Date: 10/05/11

Report to:

Mactec
1787 Sentry Park West Building 18, Suite 120
Blue Bell, PA 19422
rckarr@mactec.com; JMGARVEY@mactec.com

ATTN: Rick Karr

Total number of pages in report: 24



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

David N. Speis
David N. Speis
VP, Laboratory Director

Client Service contact: Marie Meidhof 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, PA, RI, SC, TN, VA, WV

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Test results relate only to samples analyzed.

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Sample Summary

Mactec

Job No: JA88141

Honeywell-Claymont (North Plant) Route 13, Claymont, DE
Project No: 3485110440

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JA88141-1	10/05/11	09:00 JG	10/05/11	SO	Sediment	WC-100511-1
JA88141-1A	10/05/11	09:00 JG	10/05/11	SO	Sediment	WC-100511-1
JA88141-2	10/05/11	09:15 JG	10/05/11	SO	Sediment	WC-100511-2
JA88141-2A	10/05/11	09:15 JG	10/05/11	SO	Sediment	WC-100511-2

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



Sample Results

Report of Analysis

Report of Analysis

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Client Sample ID: WC-100511-1

Lab Sample ID: JA88141-1

Date Sampled: 10/05/11

Matrix: SO - Sediment

Date Received: 10/05/11

Method: SW846 8260B SW846 1311

Percent Solids: 65.1

Project: Honeywell-Claymont (North Plant) Route 13, Claymont, DE

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L243588.D	20	10/11/11	TLR	10/07/11	GP60953	VL6125
Run #2	L243566A.D	500	10/10/11	TLR	10/07/11	GP60953	VL6124

Purge Volume

Run #1 5.0 ml

Run #2 5.0 ml

VOA TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	0.0403	D018	0.50	0.020	0.0047	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	0.40	0.032	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.020	0.0051	mg/l	
108-90-7	Chlorobenzene	11.2 *	D021	100	0.50	0.19	mg/l	
67-66-3	Chloroform	0.8525	D022	6.0	0.020	0.0047	mg/l	
106-46-7	1,4-Dichlorobenzene	0.0914	D027	7.5	0.020	0.0055	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.020	0.0067	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.020	0.0079	mg/l	
127-18-4	Tetrachloroethene	0.673	D039	0.70	0.020	0.0053	mg/l	
79-01-6	Trichloroethene	1.06	D040	0.50	0.020	0.0048	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.10	0.0089	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%	86%	76-120%
17060-07-0	1,2-Dichloroethane-D4	100%	70%	64-135%
2037-26-5	Toluene-D8	93%	96%	76-117%
460-00-4	4-Bromofluorobenzene	96%	103%	72-122%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: WC-100511-1

Lab Sample ID: JA88141-1

Matrix: SO - Sediment

Method: SW846 8270D SW846 3510C

Project: Honeywell-Claymont (North Plant) Route 13, Claymont, DE

Date Sampled: 10/05/11

Date Received: 10/05/11

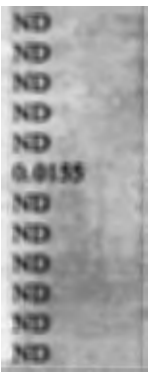
Percent Solids: 65.1

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3E36945.D	1	10/10/11	OYA	10/08/11	OP52357	E3E1634
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol		D023	200	0.020	0.010	mg/l	
	3&4-Methylphenol		D024	200	0.020	0.0093	mg/l	
87-86-5	Pentachlorophenol		D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol		D041	400	0.050	0.016	mg/l	
88-06-2	2,4,6-Trichlorophenol		D042	2.0	0.050	0.013	mg/l	
106-46-7	1,4-Dichlorobenzene		D027	7.5	0.020	0.0036	mg/l	J
121-14-2	2,4-Dinitrotoluene		D030	0.13	0.020	0.0043	mg/l	
118-74-1	Hexachlorobenzene		D032	0.13	0.020	0.0034	mg/l	
87-68-3	Hexachlorobutadiene		D033	0.50	0.010	0.0051	mg/l	
67-72-1	Hexachloroethane		D034	3.0	0.050	0.0055	mg/l	
98-95-3	Nitrobenzene		D036	2.0	0.020	0.0042	mg/l	
110-86-1	Pyridine		D038	5.0	0.020	0.0032	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	30%		13-68%
4165-62-2	Phenol-d5	20%		10-49%
118-79-6	2,4,6-Tribromophenol	68%		37-130%
4165-60-0	Nitrobenzene-d5	79%		25-112%
321-60-8	2-Fluorobiphenyl	73%		31-106%
1718-51-0	Terphenyl-d14	94%		14-122%

ND = Not detected MDL - Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	WC-100511-1	
Lab Sample ID:	JA88141-1	Date Sampled: 10/05/11
Matrix:	SO - Sediment	Date Received: 10/05/11
Method:	SW846 8151 SW846 3510C	Percent Solids: 65.1
Project:	Honeywell-Claymont (North Plant) Route 13, Claymont, DE	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	WW104570.D	1	10/17/11	OPM	10/14/11	OP52372	GWW3681
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	10.0 ml
Run #2		

Herbicide TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
94-75-7	2,4-D	ND	D016	10	0.0050	0.0013	mg/l	
93-72-1	2,4,5-TP (Silvex)	ND	D017	1.0	0.0015	0.00018	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	108%		50-142%
19719-28-9	2,4-DCAA	90%		50-142%

ND = Not detected MDL - Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

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2

Client Sample ID: WC-100511-1	Date Sampled: 10/05/11
Lab Sample ID: JA88141-1	Date Received: 10/05/11
Matrix: SO - Sediment	Percent Solids: 65.1
Method: SW846 8081B SW846 3510C	
Project: Honeywell-Claymont (North Plant) Route 13, Claymont, DE	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4G10758.D	1	10/10/11	OPM	10/10/11	OP52373	G4G322
Run #2	4G10785.D	50	10/11/11	VDT	10/10/11	OP52373	G4G323

	Initial Volume	Final Volume
Run #1	100 ml	10.0 ml
Run #2	100 ml	10.0 ml

Pesticide TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	0.120*	D013	0.40	0.0050	0.0021	mg/l	
12789-03-6	Chlordane	ND	D020	0.030	0.0050	0.0024	mg/l	
72-20-8	Endrin	ND	D012	0.020	0.00010	0.000064	mg/l	
76-44-8	Heptachlor	ND	D031	0.0080	0.00010	0.000084	mg/l	
1024-57-3	Heptachlor epoxide	ND	D031	0.0080	0.00010	0.000038	mg/l	
72-43-5	Methoxychlor	ND	D014	10	0.00020	0.000082	mg/l	
8001-35-2	Toxaphene	ND	D015	0.50	0.0025	0.0015	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	473% ^c	0% ^b	30-137%
877-09-8	Tetrachloro-m-xylene	120%	0% ^b	30-137%
2051-24-3	Decachlorobiphenyl	79%	0% ^b	10-137%
2051-24-3	Decachlorobiphenyl	65%	0% ^b	10-137%

(a) Result is from Run# 2

(b) Outside control limits due to dilution.

(c) Outside control limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 261.6/96)
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

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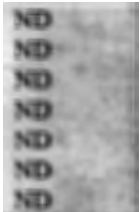
2

Client Sample ID: WC-100511-1**Lab Sample ID:** JA88141-1**Date Sampled:** 10/05/11**Matrix:** SO - Sediment**Date Received:** 10/05/11**Method:** SW846 8082A SW846 3545A**Percent Solids:** 65.1**Project:** Honeywell-Claymont (North Plant) Route 13, Claymont, DE

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G59485.D	1	10/08/11	TDR	10/07/11	OP52324	G2G2190
Run #2							

	Initial Weight	Final Volume
Run #1	10.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016		77	20	ug/kg	
11104-28-2	Aroclor 1221		77	46	ug/kg	
11141-16-5	Aroclor 1232		77	39	ug/kg	
53469-21-9	Aroclor 1242		77	24	ug/kg	
12672-29-6	Aroclor 1248		77	23	ug/kg	
11097-69-1	Aroclor 1254		77	36	ug/kg	
11096-82-5	Aroclor 1260		77	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	377% ^a		22-141%
877-09-8	Tetrachloro-m-xylene	672% ^a		22-141%
2051-24-3	Decachlorobiphenyl	125%		18-163%
2051-24-3	Decachlorobiphenyl	142%		18-163%

(a) Outside control limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: WC-100511-1

Lab Sample ID: JA88141-1

Matrix: SO - Sediment

Date Sampled: 10/05/11

Date Received: 10/05/11

Percent Solids: 65.1

Project: Honeywell-Claymont (North Plant) Route 13, Claymont, DE

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.50	D004	5.0	0.50	mg/l	1	10/07/11	10/11/11 ND	SW846 6010C ¹	SW846 3010A ⁴
Barium	< 1.0	D005	100	1.0	mg/l	1	10/07/11	10/11/11 ND	SW846 6010C ¹	SW846 3010A ⁴
Cadmium	0.014	D006	1.0	0.0050	mg/l	1	10/07/11	10/11/11 ND	SW846 6010C ¹	SW846 3010A ⁴
Chromium	0.11	D007	5.0	0.010	mg/l	1	10/07/11	10/11/11 ND	SW846 6010C ¹	SW846 3010A ⁴
Copper	0.056			0.025	mg/l	1	10/07/11	10/12/11 ND	SW846 6010C ³	SW846 3010A ⁴
Lead	5.5	D008	5.0	0.50	mg/l	1	10/07/11	10/11/11 ND	SW846 6010C ¹	SW846 3010A ⁴
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	10/10/11	10/10/11 MP	SW846 7470A ²	SW846 7470A ⁵
Nickel	0.090			0.040	mg/l	1	10/07/11	10/11/11 ND	SW846 6010C ¹	SW846 3010A ⁴
Selenium	< 0.50	D010	1.0	0.50	mg/l	1	10/07/11	10/11/11 ND	SW846 6010C ¹	SW846 3010A ⁴
Silver	< 0.010	D011	5.0	0.010	mg/l	1	10/07/11	10/11/11 ND	SW846 6010C ¹	SW846 3010A ⁴
Zinc	4.3			0.10	mg/l	1	10/07/11	10/11/11 ND	SW846 6010C ¹	SW846 3010A ⁴

(1) Instrument QC Batch: MA27245

(2) Instrument QC Batch: MA27246

(3) Instrument QC Batch: MA27261

(4) Prep QC Batch: MP60581

(5) Prep QC Batch: MP60625

RL = Reporting Limit

MCL = Maximum Contamination Level (40 CFR 261.6/96)

Report of Analysis

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2.1

2

Client Sample ID: WC-100511-1

Lab Sample ID: JA88141-1

Matrix: SO - Sediment

Date Sampled: 10/05/11

Date Received: 10/05/11

Percent Solids: 65.1

Project: Honeywell-Claymont (North Plant) Route 13, Claymont, DE

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 15	15	mg/kg	1	10/11/11 12:15	MG	SW846 CHAP7/9012 B
HEM Oil and Grease	< 700	700	mg/kg	1	10/12/11	JOO	SW846 9071B
Ignitability (Flashpoint)	> 200		Deg. F	1	10/11/11	JOO	SW846 CHAP7/ASTM D93
Paint Filter Test ^a	< 0.50	0.50	ml/100g	1	10/11/11	LMM	SW846 9095B
Solids, Percent	65.1		%	1	10/10/11	BM	SM18 2540G
Solids, Total	579000	100	mg/kg	1	10/07/11	DD	SM18 2540G
Solids, Total Volatile (wet wt.)	50600	100	mg/kg	1	10/07/11	DD	SM18 2540G
Sulfide Reactivity	< 150	150	mg/kg	1	10/10/11	ST	SW846 CHAP7/9034
pH	7.78		su	1	10/11/11	LMM	SW846 9045C,D
pH, Step 1 TCLP	7.87		su	1	10/10/11	MP	SW846 1311
pH, Step 2 TCLP	1.81		su	1	10/10/11	MP	SW846 1311
pH, TCLP Leachate	5.54		su	1	10/10/11	MP	SW846 1311

(a) No free liquids.

RL = Reporting Limit

Report of Analysis

Client Sample ID: WC-100511-1**Lab Sample ID:** JA88141-1A**Matrix:** SO - Sediment**Date Sampled:** 10/05/11**Date Received:** 10/05/11**Percent Solids:** 65.1**Project:** Honeywell-Claymont (North Plant) Route 13, Claymont, DE

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Ammonia-ASTM Leachate ^a	< 0.20	0.20	mg/l	1	10/11/11 14:20	MG	SM20 4500NH3G
COD-ASTM Leachate ^a	700	20	mg/l	1	10/12/11	JA	SM205220C, HACH 8000
HEM Oil & Grease-ASTM L ^a	< 10	10	mg/l	1	10/11/11	JOO	EPA 1664A
Solids, Total-ASTM Leachate ^a	1130	10	mg/l	1	10/10/11	RI	SM20 2540B

(a) Result reported for Neutral Leachate ASTM D3987.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	WC-100511-2	Date Sampled:	10/05/11
Lab Sample ID:	JA88141-2	Date Received:	10/05/11
Matrix:	SO - Sediment	Percent Solids:	61.0
Method:	SW846 8260B SW846 1311		
Project:	Honeywell-Claymont (North Plant) Route 13, Claymont, DE		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L243572.D	5	10/10/11	TLR	10/07/11	GP60953	VL6124
Run #2	L243593.D	10	10/11/11	TLR	10/07/11	GP60953	VL6125
Run #3	L243594.D	100	10/11/11	TLR	10/07/11	GP60953	VL6125

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml
Run #3	5.0 ml

VOA TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	0.0632	D018	0.50	0.0050	0.0012	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	0.10	0.0081	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.0050	0.0013	mg/l	
108-90-7	Chlorobenzene	11.5 *	D021	100	0.10	0.039	mg/l	
67-66-3	Chloroform	0.0949	D022	6.0	0.0050	0.0012	mg/l	
106-46-7	1,4-Dichlorobenzene	0.0517	D027	7.5	0.0050	0.0014	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.0050	0.0017	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.0050	0.0020	mg/l	
127-18-4	Tetrachloroethene	1.34 *	D039	0.70	0.010	0.0027	mg/l	
79-01-6	Trichloroethene	5.40 *	D040	0.50	0.10	0.024	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.025	0.0022	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
1868-53-7	Dibromofluoromethane	94%	93%	93%	76-120%
17060-07-0	1,2-Dichloroethane-D4	99%	101%	100%	64-135%
2037-26-5	Toluene-D8	94%	95%	95%	76-117%
460-00-4	4-Bromofluorobenzene	95%	96%	96%	72-122%

(a) Result is from Run# 3

(b) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 261.6/96)
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	WC-100511-2	Date Sampled:	10/05/11
Lab Sample ID:	JA88141-2	Date Received:	10/05/11
Matrix:	SO - Sediment	Percent Solids:	61.0
Method:	SW846 8270D SW846 3510C		
Project:	Honeywell-Claymont (North Plant) Route 13, Claymont, DE		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3E36946.D	1	10/10/11	OYA	10/08/11	OP52357	E3E1634
Run #2							

Run #	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol	D023	200	0.020	0.010	mg/l		
	3&4-Methylphenol	D024	200	0.020	0.0093	mg/l		
87-86-5	Pentachlorophenol	D037	100	0.10	0.014	mg/l		
95-95-4	2,4,5-Trichlorophenol	D041	400	0.050	0.016	mg/l		
88-06-2	2,4,6-Trichlorophenol	D042	2.0	0.050	0.013	mg/l		
106-46-7	1,4-Dichlorobenzene	D027	7.5	0.020	0.0036	mg/l		J
121-14-2	2,4-Dinitrotoluene	D030	0.13	0.020	0.0043	mg/l		
118-74-1	Hexachlorobenzene	D032	0.13	0.020	0.0034	mg/l		
87-68-3	Hexachlorobutadiene	D033	0.50	0.010	0.0051	mg/l		
67-72-1	Hexachloroethane	D034	3.0	0.050	0.0055	mg/l		
98-95-3	Nitrobenzene	D036	2.0	0.020	0.0042	mg/l		
110-86-1	Pyridine	D038	5.0	0.020	0.0032	mg/l		

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	32%		13-68%
4165-62-2	Phenol-d5	20%		10-49%
118-79-6	2,4,6-Tribromophenol	70%		37-130%
4165-60-0	Nitrobenzene-d5	84%		25-112%
321-60-8	2-Fluorobiphenyl	79%		31-106%
1718-51-0	Terphenyl-d14	97%		14-122%

ND = Not detected MDL - Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

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2

Client Sample ID: WC-100511-2**Lab Sample ID:** JA88141-2**Date Sampled:** 10/05/11**Matrix:** SO - Sediment**Date Received:** 10/05/11**Method:** SW846 8151 SW846 3510C**Percent Solids:** 61.0**Project:** Honeywell-Claymont (North Plant) Route 13, Claymont, DE

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	WW104492.D	1	10/14/11	TDR	10/10/11	OP52372	GW3679
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	10.0 ml
Run #2		

Herbicide TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
94-75-7	2,4-D	ND	D016	10	0.0050	0.0013	mg/l	
93-72-1	2,4,5-TP (Silvex)	ND	D017	1.0	0.0015	0.00018	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	79%		50-142%
19719-28-9	2,4-DCAA	77%		50-142%

ND = Not detected MDL - Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

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2.3

2

Client Sample ID: WC-100511-2

Lab Sample ID: JA88141-2

Date Sampled: 10/05/11

Matrix: SO - Sediment

Date Received: 10/05/11

Method: SW846 8081B SW846 3510C

Percent Solids: 61.0

Project: Honeywell-Claymont (North Plant) Route 13, Claymont, DE

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4G10786.D	1	10/11/11	VDT	10/10/11	OP52373	G4G323
Run #2	4G10787.D	50	10/11/11	VDT	10/10/11	OP52373	G4G323

	Initial Volume	Final Volume
Run #1	100 ml	10.0 ml
Run #2	100 ml	10.0 ml

Pesticide TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	0.175*	D013	0.40	0.0050	0.0021	mg/l	
12789-03-6	Chlordane	ND	D020	0.030	0.0050	0.0024	mg/l	
72-20-8	Endrin	ND	D012	0.020	0.00010	0.000064	mg/l	
76-44-8	Heptachlor	ND	D031	0.0080	0.00010	0.000084	mg/l	
1024-57-3	Heptachlor epoxide	ND	D031	0.0080	0.00010	0.000038	mg/l	
72-43-5	Methoxychlor	ND	D014	10	0.00020	0.000082	mg/l	
8001-35-2	Toxaphene	ND	D015	0.50	0.0025	0.0015	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	1155% ^a	0% ^b	30-137%
877-09-8	Tetrachloro-m-xylene	124%	0% ^b	30-137%
2051-24-3	Decachlorobiphenyl	23%	0% ^b	10-137%
2051-24-3	Decachlorobiphenyl	28%	0% ^b	10-137%

(a) Result is from Run# 2

(b) Outside control limits due to dilution.

(c) Outside control limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 261.6/96)
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

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2

Client Sample ID:	WC-100511-2	Date Sampled:	10/05/11
Lab Sample ID:	JA88141-2	Date Received:	10/05/11
Matrix:	SO - Sediment	Percent Solids:	61.0
Method:	SW846 8082A SW846 3545A		
Project:	Honeywell-Claymont (North Plant) Route 13, Claymont, DE		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G59486.D	1	10/08/11	TDR	10/07/11	OP52324	G2G2190
Run #2							

	Initial Weight	Final Volume
Run #1	17.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	48	48	13	ug/kg	
11104-28-2	Aroclor 1221	48	48	29	ug/kg	
11141-16-5	Aroclor 1232	48	48	24	ug/kg	
53469-21-9	Aroclor 1242	48	48	15	ug/kg	
12672-29-6	Aroclor 1248	48	48	15	ug/kg	
11097-69-1	Aroclor 1254	48	48	23	ug/kg	
11096-82-5	Aroclor 1260	48	48	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	307% ^a		22-141%
877-09-8	Tetrachloro-m-xylene	420% ^a		22-141%
2051-24-3	Decachlorobiphenyl	113%		18-163%
2051-24-3	Decachlorobiphenyl	139%		18-163%

(a) Outside control limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: WC-100511-2

Lab Sample ID: JA88141-2

Matrix: SO - Sediment

Date Sampled: 10/05/11

Date Received: 10/05/11

Percent Solids: 61.0

Project: Honeywell-Claymont (North Plant) Route 13, Claymont, DE

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.50	D004	5.0	0.50	mg/l	1	10/07/11	10/11/11	ND	SW846 6010C ¹ SW846 3010A ⁴
Barium	< 1.0	D005	100	1.0	mg/l	1	10/07/11	10/11/11	ND	SW846 6010C ¹ SW846 3010A ⁴
Cadmium	0.0058	D006	1.0	0.0050	mg/l	1	10/07/11	10/11/11	ND	SW846 6010C ¹ SW846 3010A ⁴
Chromium	0.10	D007	5.0	0.010	mg/l	1	10/07/11	10/11/11	ND	SW846 6010C ¹ SW846 3010A ⁴
Copper	< 0.025			0.025	mg/l	1	10/07/11	10/12/11	ND	SW846 6010C ³ SW846 3010A ⁴
Lead	3.4	D008	5.0	0.50	mg/l	1	10/07/11	10/11/11	ND	SW846 6010C ¹ SW846 3010A ⁴
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	10/10/11	10/10/11	MP	SW846 7470A ² SW846 7470A ⁵
Nickel	0.061			0.040	mg/l	1	10/07/11	10/11/11	ND	SW846 6010C ¹ SW846 3010A ⁴
Selenium	< 0.50	D010	1.0	0.50	mg/l	1	10/07/11	10/11/11	ND	SW846 6010C ¹ SW846 3010A ⁴
Silver	< 0.010	D011	5.0	0.010	mg/l	1	10/07/11	10/11/11	ND	SW846 6010C ¹ SW846 3010A ⁴
Zinc	1.0			0.10	mg/l	1	10/07/11	10/11/11	ND	SW846 6010C ¹ SW846 3010A ⁴

(1) Instrument QC Batch: MA27245

(2) Instrument QC Batch: MA27246

(3) Instrument QC Batch: MA27261

(4) Prep QC Batch: MP60581

(5) Prep QC Batch: MP60625

RL = Reporting Limit

MCL = Maximum Contamination Level (40 CFR 261.6/96)

Report of Analysis

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2.3

2

Client Sample ID: WC-100511-2

Lab Sample ID: JA88141-2

Matrix: SO - Sediment

Date Sampled: 10/05/11

Date Received: 10/05/11

Percent Solids: 61.0

Project: Honeywell-Claymont (North Plant) Route 13, Claymont, DE

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 16	16	mg/kg	1	10/11/11 12:16	MG	SW846 CHAP7/9012 B
HEM Oil and Grease	< 820	820	mg/kg	1	10/12/11	JOO	SW846 9071B
Ignitability (Flashpoint)	> 200		Deg. F	1	10/11/11	JOO	SW846 CHAP7/ASTM D93
Paint Filter Test ^a	< 0.50	0.50	ml/100g	1	10/11/11	LMM	SW846 9095B
Solids, Percent	61		%	1	10/10/11	BM	SM18 2540G
Solids, Total	568000	100	mg/kg	1	10/07/11	DD	SM18 2540G
Solids, Total Volatile (wet wt.)	50200	100	mg/kg	1	10/07/11	DD	SM18 2540G
Sulfide Reactivity	< 160	160	mg/kg	1	10/10/11	ST	SW846 CHAP7/9034
pH	7.77		su	1	10/11/11	LMM	SW846 9045C,D
pH, Step 1 TCLP	8.35		su	1	10/10/11	MP	SW846 1311
pH, Step 2 TCLP	1.38		su	1	10/10/11	MP	SW846 1311
pH, TCLP Leachate	5.45		su	1	10/10/11	MP	SW846 1311

(a) No free liquids.

RL = Reporting Limit

Report of Analysis

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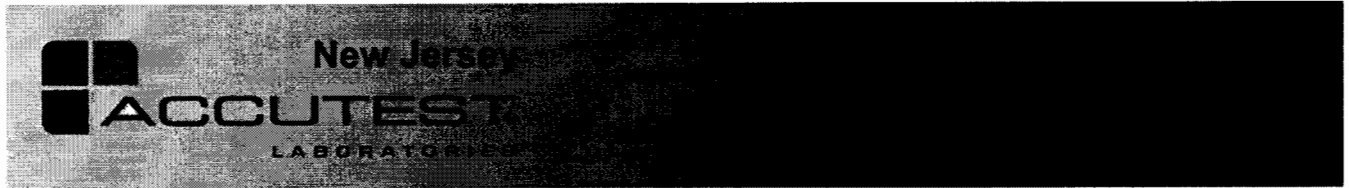
Client Sample ID:	WC-100511-2	Date Sampled:	10/05/11
Lab Sample ID:	JA88141-2A	Date Received:	10/05/11
Matrix:	SO - Sediment	Percent Solids:	61.0
Project:	Honeywell-Claymont (North Plant) Route 13, Claymont, DE		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Ammonia-ASTM Leachate ^a	0.27	0.20	mg/l	1	10/11/11 14:21	MG	SM20 4500NH3G
COD-ASTM Leachate ^a	660	20	mg/l	1	10/12/11	JA	SM205220C, HACH 8000
HEM Oil & Grease-ASTM L ^a	< 7.7	7.7	mg/l	1	10/11/11	JOO	EPA 1664A
Solids, Total-ASTM Leachate ^a	1010	10	mg/l	1	10/10/11	RI	SM20 2540B

(a) Result reported for Neutral Leachate ASTM D3987.

RL = Reporting Limit



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)		Matrix Codes	
Company: ATCC Street Address: 1787 Sundry Play Ste 120 City: Blue Bell PA 19380 Project Contact: Rick Kurr Phone: 215 619 0292 / 416 619 0297 Sample(s) Name(s): Joe Garvey		Project Name: Harquell Claymont Street Address: 6100 Philadelphia Pk City: Claymont DE Project # 3485110410 Client Purchase Order # Project Manager: Rick Kurr		Billing Information (if different from Report to) Company Name Street Address City State Zip Attention:		Accutest Job # JA88141 Matrix Codes: DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
Field ID / Point of Collection		Collection		Number of preserved bottles		LAB USE ONLY	
1 WC-100511-1		Date: 12/5/11 Time: 1000		Sampled by: JG 560 4		48A	
2 WC-100511-2		Date: 12/6/11 Time: 1115		Sampled by: 4		297	
						19N2	
						ME29	
Turnaround Time (Business days)		Data Deliverable Information		Comments / Special Instructions			
<input type="checkbox"/> Std. 15 Business Days <input type="checkbox"/> Std. 10 Business Days (by Contract only) <input type="checkbox"/> 10 Day RUSH <input checked="" type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY		Approved By (Accutest Pkty / Date) <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> NJ Reduced <input type="checkbox"/> Commercial "C" Commercial "A" = Results Only Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data		<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forces <input type="checkbox"/> EDD Format <input type="checkbox"/> Other			
Emergency & Rush T&A data available via Lablink		Sample Custody must be documented below each time samples change possession, including courier delivery.					
1. Received by: Joe Garvey Date/Time: 12/5/11 1300		2. Received By: Russell Pina Date/Time: 12/5/11 1415		3. Received By: Russell Pina Date/Time: 12/5/11 1415		4. Received By: Russell Pina Date/Time: 12/5/11 1415	
5. Received by:		6. Received By:		7. Received By:		8. Received By:	
Custody Seal #		Initial		Preserved when applicable		On Ice Cooler Temp. 1.5°C	

Tracking #: JA88141

Immediate Analysis Record

Date 10/5/2011 Sampling Date/Time: 10/5/11 0900 Rcv'd in HT: YES
Client Name: AMEC # of Samples: 2 # of 2
Locations: 48 A, Delv:
Comments: 5 DAY TAT

Sample info relinquished from sample management by: MATTCA Date / Time: 10/5/2011 4:48:04 PM
Sample info received in general chemistry by: Date / Time:

Sample Number	Analysis	Matrix
1, 2	pH	SED

Requested by: Date/Time:
The following samples have been depleted / broken:
Relinquished by (Sample Mgt): Rcv'd by (Lab): Date/Time:
Relinquished by (Lab): Rcv'd by (Sample Mgt): Date/Time:

JA88141: Chain of Custody
Page 2 of 3



Accutest Laboratories Sample Receipt Summary

Accutest Job Number: JA88141 Client: _____

Date / Time Received: 10/5/2011 Project: _____

No. Coolers: 1 Airbill #'s: _____ Delivery Method: _____

Cooler Security Y or N Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature Y or N

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | IR Gun | |
| 3. Cooler media: | Ice (Bag) | |

Quality Control Preservation Y or N N/A

- | | | | |
|---------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Trip Blank listed on COC: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Sample Integrity - Documentation Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions Y or N N/A

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume recvd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments

Accutest Laboratories
V: 732.329.0200

2235 US Highway 130
F: 732.329.3499

Dayton, New Jersey
www.eccutest.com

JA88141: Chain of Custody

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TABLE 1
Storm Sewer Sediment Sampling Results
January/March 2011
Honeywell - Delaware Valley Works
Claymont, DE

Sample ID	SS-2	SS-3	SS-4	SS-4	SS-5	SS-6	SS-6	SS-6A
Date Sampled	1/20/2011	1/20/2011	1/20/2011	3/16/2011	1/20/2011	1/20/2011	3/16/2011	3/17/2011
Metals (mg/kg)								
Arsenic	31.2 J	2.9 J	9.2 J	9.5	16.6 J	148 J	202	33.3
Lead	667 J	12.6 J	56.1 J	52.0	581 J	1990 J	1740	566
Pesticides (mg/kg)								
alpha-BHC	ND (3.6)	0.04 J	ND (5.4)	3.1 J	6.9	ND (680)	ND (280)	2200
beta-BHC	6.8	1.1	ND (5.4)	18	46	440 J	260 J	270
delta-BHC	ND (3.6)	0.026 J	ND (5.4)	ND (11)	3.6	ND (680)	ND (280)	ND (130)
gamma-BHC (Lindane)	ND (3.6)	0.11	ND (5.4)	ND (11)	0.48 J	ND (680)	ND (280)	64 J
Heptachlor epoxide	ND (3.6)	ND (0.044)	ND (5.4)	ND (11)	ND (0.41)	ND (680)	ND (280)	ND (130)
Endosulfan I	ND (3.6)	ND (0.044)	ND (5.4)	ND (11)	0.59 J	ND (680)	ND (280)	ND (130)
Dieldrin	ND (3.6)	ND (0.044)	ND (5.4)	ND (11)	0.61 JN	ND (680)	ND (280)	ND (130)
4,4'-DDE	11	0.65	29	18 J	22	870	1100	80 J
Endrin	ND (3.6)	ND (0.044)	ND (5.4)	ND (11)	ND (0.41)	ND (680)	ND (280)	ND (130)
Endrin ketone	ND (3.6)	0.023 J	ND (5.4)	ND (11)	ND (0.41)	ND (680)	ND (280)	ND (130)
Endrin aldehyde	ND (3.6)	ND (0.044)	1.3 J	ND (11)	ND (0.41)	ND (680)	ND (280)	ND (130)
Endosulfan II	ND (3.6)	ND (0.044)	ND (5.4)	ND (11)	ND (0.41)	ND (680)	ND (280)	47 J
4,4'-DDD	260	0.83	290	800	58	6900	5200	2100
Endosulfan sulfate	ND (3.6)	ND (0.044)	0.57 JN	ND (11)	ND (0.41)	ND (680)	ND (280)	ND (130)
4,4'-DDT	450	3.6	480	550	28	41000	10000	9800
Methoxychlor	ND (7)	ND (0.086)	7.4 J	5.5 J	ND (0.8)	ND (1300)	ND (550)	ND (250)
alpha-Chlordane	ND (3.6)	ND (0.044)	ND (5.4)	ND (11)	2.7	ND (680)	ND (280)	ND (130)
gamma-Chlordane	ND (3.6)	0.062 JB	ND (5.4)	3.5 J	1.5 J	ND (680)	350	ND (130)
Percent Solids (%)								
	58.7	95.8	76.7		50	31.2		

Notes:

B - Analyte detected in method blank

J - Estimated result

L - Low bias

N - Uncertainty in identification

ND (3.6) - Compound not detected above (Reporting limit)

TABLE 1
Storm Sewer Sediment Sampling Results
January/March 2011
Honeywell - Delaware Valley Works
Claymont, DE

Sample ID	SS-7	SS-7A	SS-8	SS-8	SS-9	SS-9	SS-10	DUP-1 (SS-10)	SS-11
Date Sampled	3/16/2011	3/16/2011	1/20/2011	3/16/2011	1/20/2011	3/16/2011	1/20/2011	1/20/2011	1/20/2011
Metals (mg/kg)									
Arsenic	156	21.3	129 J	87.5	7.8 J	21.3	11.9 J	4.7 J	3.5 J
Lead	1100	114	1440 J	959	159 J	196	408 J	192 J	80.7 J
Pesticides (mg/kg)									
alpha-BHC	99 J	ND (0.69)	ND (21)	13 J	ND (29)	ND (84)	ND (5.4)	ND (2.7)	0.61
beta-BHC	120 J	0.89	ND (21)	35	ND (29)	ND (84)	ND (5.4)	ND (2.7)	0.33
delta-BHC	ND (210)	ND (0.69)	ND (21)	ND (16)	ND (29)	ND (84)	ND (5.4)	ND (2.7)	0.2 J
gamma-BHC (Lindane)	ND (210)	ND (0.69)	ND (21)	ND (16)	ND (29)	ND (84)	ND (5.4)	ND (2.7)	0.25 J
Heptachlor epoxide	ND (210)	ND (0.69)	ND (21)	ND (16)	ND (29)	ND (84)	ND (5.4)	ND (2.7)	ND (0.27)
Endosulfan I	ND (210)	ND (0.69)	ND (21)	ND (16)	ND (29)	ND (84)	ND (5.4)	ND (2.7)	0.13 J
Dieldrin	ND (210)	ND (0.69)	ND (21)	ND (16)	ND (29)	ND (84)	ND (5.4)	ND (2.7)	ND (0.27)
4,4'-DDE	190 J	1.3 PG	20 J	46	71	100 J	26	17	3.2
Endrin	ND (210)	ND (0.69)	ND (21)	ND (16)	ND (29)	ND (84)	ND (5.4)	ND (2.7)	ND (0.27)
Endrin ketone	ND (210)	ND (0.69)	ND (21)	ND (16)	ND (29)	ND (84)	ND (5.4)	ND (2.7)	ND (0.27)
Endrin aldehyde	ND (210)	ND (0.69)	ND (21)	ND (16)	ND (29)	ND (84)	ND (5.4)	ND (2.7)	ND (0.27)
Endosulfan II	83 J	ND (0.69)	ND (21)	ND (16)	ND (29)	ND (84)	ND (5.4)	ND (2.7)	ND (0.27)
4,4'-DDD	10000	32	1000	1500	3300	5600	670 J	320 J	36
Endosulfan sulfate	ND (210)	ND (0.69)	ND (21)	ND (16)	ND (29)	ND (84)	ND (5.4)	ND (2.7)	ND (0.27)
4,4'-DDT	17000	26	350	920	2100	2600	710 J	330 J	20
Methoxychlor	ND (400)	ND (1.3)	ND (41)	ND (31)	ND (57)	ND (160)	5.7 J	6.5	0.4 J
alpha-Chlordane	ND (210)	ND (0.69)	ND (21)	ND (16)	ND (29)	ND (84)	ND (5.4)	ND (2.7)	ND (0.27)
gamma-Chlordane	ND (210)	0.34 J	ND (21)	8.3 J	ND (29)	22 J	ND (5.4)	ND (2.7)	0.17 J
Percent Solids (%)			49.1		72.7		79	75.7	78.2

TABLE 1
Storm Sewer Sediment Sampling Results
January/March 2011
Honeywell - Delaware Valley Works
Claymont, DE

Sample ID	SS-12	SS-12	SS-13	SS-13	Dup-1 (SS-13)	SS-14	SS-15	SS-17	SS-19
Date Sampled	1/20/2011	3/16/2011	1/20/2011	3/16/2011	3/16/2011	1/20/2011	1/20/2011	1/20/2011	1/31/2011
Metals (mg/kg)									
Arsenic	10.4 J	11.0	14.9 J	15.5	18.3	1.8 J	2.1 J	2.8 J	54.3 J
Lead	95.5 J	135	193 J	220	182	447 J	7.3 J	41.7 J	369
Pesticides (mg/kg)									
alpha-BHC	ND (16)	ND (130)	ND (510)	ND (160)	ND (160)	0.096	ND (0.044)	ND (1.3)	0.02 J
beta-BHC	ND (16)	ND (130)	ND (510)	ND (160)	ND (160)	0.15	0.38	ND (1.3)	0.27
delta-BHC	ND (16)	ND (130)	ND (510)	ND (160)	ND (160)	0.035 J	0.0073 J	ND (1.3)	0.011 J
gamma-BHC (Lindane)	ND (16)	ND (130)	ND (510)	ND (160)	ND (160)	ND (0.052)	ND (0.044)	ND (1.3)	ND (0.049)
Heptachlor epoxide	ND (16)	ND (130)	ND (510)	ND (160)	ND (160)	ND (0.052)	ND (0.044)	ND (1.3)	ND (0.049)
Endosulfan I	ND (16)	ND (130)	ND (510)	46 J	32 J	ND (0.052)	ND (0.044)	ND (1.3)	ND (0.049)
Dieldrin	ND (16)	ND (130)	ND (510)	ND (160)	ND (160)	ND (0.052)	0.025 JN	ND (1.3)	ND (0.049)
4,4'-DDE	13 J	130 J	ND (510)	500 J	260 J	0.21	0.29	4.7 J	0.87
Endrin	ND (16)	ND (130)	ND (510)	ND (160)	ND (160)	ND (0.052)	ND (0.044)	ND (1.3)	0.052 JN
Endrin ketone	ND (16)	ND (130)	ND (510)	ND (160)	ND (160)	ND (0.052)	ND (0.044)	ND (1.3)	ND (0.049)
Endrin aldehyde	ND (16)	ND (130)	ND (510)	ND (160)	ND (160)	ND (0.052)	ND (0.044)	ND (1.3)	ND (0.049)
Endosulfan II	ND (16)	ND (130)	ND (510)	ND (160)	ND (160)	ND (0.052)	ND (0.044)	ND (1.3)	ND (0.049)
4,4'-DDD	510	3500	21000	14000	16000	0.38	1.2	26	4.9
Endosulfan sulfate	ND (16)	ND (130)	ND (510)	ND (160)	ND (160)	ND (0.052)	ND (0.044)	ND (1.3)	ND (0.049)
4,4'-DDT	500	5200	11000	21000 J	7900 J	0.6	0.63	78	1.2
Methoxychlor	ND (30)	64 J	ND (980)	ND (310)	ND (320)	ND (0.1)	ND (0.085)	ND (2.5)	ND (0.096)
alpha-Chlordane	ND (16)	ND (130)	ND (510)	ND (160)	ND (160)	ND (0.052)	ND (0.044)	ND (1.3)	ND (0.049)
gamma-Chlordane	ND (16)	ND (130)	ND (510)	ND (160)	ND (160)	ND (0.052)	ND (0.044)	ND (1.3)	0.25
Percent Solids (%)	67.9		41.3			80.8	96.5	81.1	85.2

TABLE 1
Storm Sewer Sediment Sampling Results
January/March 2011
Honeywell - Delaware Valley Works
Claymont, DE

Sample ID	SS-20	SS-21	SS-22	SS-24	SS-25	SS-26	DUP-1 (SS-26)	CG-13B	CG-13C	CG-13D
Date Sampled	1/31/2011	1/31/2011	1/31/2011	1/31/2011	1/31/2011	1/31/2011	1/31/2011	3/17/2011	3/17/2011	3/17/2011
Metals (mg/kg)										
Arsenic	9.7 JL	175 J	25.1 J	17.5 J	60.8 J	17.7 J	10.4 J	2.2	1.7	10.3
Lead	378	32800	497	537	250	118	82.4	25.1	16.2	75.7
Pesticides (mg/kg)										
alpha-BHC	ND (0.058)	ND (0.23)	ND (0.11)	ND (2.5)	ND (0.055)	0.051	0.032 J	1.3	ND (0.10)	ND (0.26)
beta-BHC	ND (0.058)	ND (0.23)	0.11	ND (2.5)	0.61	0.57	0.54	7.5	0.25	ND (0.26)
delta-BHC	ND (0.058)	ND (0.23)	ND (0.11)	ND (2.5)	0.015 J	0.035 J	0.023 J	0.21	ND (0.10)	ND (0.26)
gamma-BHC (Lindane)	0.091 J	ND (0.23)	ND (0.11)	ND (2.5)	ND (0.055)	0.033 J	0.012 J	0.047 J	ND (0.10)	ND (0.26)
Heptachlor epoxide	ND (0.058)	ND (0.23)	0.066 J	ND (2.5)	ND (0.055)	ND (0.049)	ND (0.051)	ND (0.10)	ND (0.10)	ND (0.26)
Endosulfan I	ND (0.058)	ND (0.23)	ND (0.11)	ND (2.5)	0.029 JN	ND (0.049)	ND (0.051)	ND (0.10)	ND (0.10)	ND (0.26)
Dieldrin	ND (0.058)	ND (0.23)	ND (0.11)	ND (2.5)	ND (0.055)	ND (0.049)	ND (0.051)	1.9	0.22	0.12 J
4,4'-DDE	1.1	4.2	2.1	2 J	2	0.95	0.94	4	0.58	0.27 J
Endrin	0.066 JN	0.14 J	0.17 JN	ND (2.5)	ND (0.055)	ND (0.049)	ND (0.051)	ND (0.10)	ND (0.10)	ND (0.26)
Endrin ketone	ND (0.058)	ND (0.23)	0.022 J	ND (2.5)	ND (0.055)	ND (0.049)	ND (0.051)	ND (0.10)	ND (0.10)	ND (0.26)
Endrin aldehyde	ND (0.058)	ND (0.23)	ND (0.11)	2.3 J	ND (0.055)	ND (0.049)	ND (0.051)	ND (0.10)	ND (0.10)	ND (0.26)
Endosulfan II	ND (0.058)	ND (0.23)	ND (0.11)	ND (2.5)	ND (0.055)	ND (0.049)	ND (0.051)	ND (0.10)	ND (0.10)	ND (0.26)
4,4'-DDD	0.65	19	9.5	16	8.3	1.2	1.2	7.7	0.77	0.41 J
Endosulfan sulfate	0.0098 J	ND (0.23)	ND (0.11)	3.1	ND (0.055)	ND (0.049)	ND (0.051)	ND (0.10)	ND (0.10)	ND (0.26)
4,4'-DDT	2.3	3.4	10	150	4.6	4.1 J	2.4 J	14	0.69	0.49 J
Methoxychlor	ND (0.11)	ND (0.44)	ND (0.21)	ND (4.9)	0.1 J	ND (0.095)	ND (0.099)	ND (0.20)	ND (0.19)	ND (0.26)
alpha-Chlordane	ND (0.058)	ND (0.23)	ND (0.11)	ND (2.5)	0.049 J	ND (0.049)	ND (0.051)	ND (0.10)	ND (0.10)	ND (0.26)
gamma-Chlordane	0.029 JB	0.11 JB	0.11 B	ND (2.5)	0.17	0.018 JB	0.02 JB	0.18	0.065 J	0.11 J
Percent Solids (%)										
	72.9	37.1	77.1	82.9	75.6	86.3	83.1			

Created by: MT 3/3/11 JG 4/12/11
Checked by: JG 3/3/11 MT 4/12/11

WASTE PRODUCT SURVEY



Ross Incineration Services, Inc.

36790 Giles Road, Grafton, Ohio 44044 1-800-878-ROSS (7677) (440) 748-2171 Fax (440) 748-1267 USEPA ID # OHD 048 415 665

1. WPS# _____
former WPS # _____ (If applicable)

Please do not leave any blank spaces

2. GENERATOR INFORMATION

Generator ID# (Include original generator information) Honeywell International Inc.
U.S. EPA ID # PAD 981 739 758 Business Contact/Title Shelbi Ciarrocchi
Plant Address 6300 Philadelphia Pike Mailing Address 2337 NORTH PENN ROAD
City, State, Zip Marcus Hook, PA 19061 City, State, Zip HATFIELD, PA 19440
Ship from address Same as Plant Address Phone 215-822-2676 Ext. _____ Fax 215-997-8219
City, State, Zip _____ Technical Contact/Title Shelbi Ciarrocchi
Service Agreement Entity PSC ENVIRONMENTAL SERVICES Mailing Address 2337 NORTH PENN ROAD
Primary business activity at generating facility Production of chemicals for City, State, Zip HATFIELD, PA 19440
The electronics industry. Phone 215-822-2676 Ext. 230 Fax 215-997-8219
24-hour Emergency phone 877-756-7544
After Hours phone _____
Is facility a "10 Mg Generator" per 40 CFR 61.340? ☐ Yes ☐ No
Does this facility produce, use or receive munitions or explosives? ☐ Yes ☒ No

3. GENERAL INFORMATION

Waste Name Soil Waste this waste generated from a CERCLA (Superfund) activity?
Physical Description Contaminated Soil no free liquids. Yes _____ No ☒
Generator code _____ (optional) Do you receive RCRA hazardous waste from any other facility?
SIC code _____ Yes _____ No ☒
Process that generates the waste Storm Sewer Cleaning Is your company the original generator of this waste?
Rate of generation 10 roll offs one time Yes ☒ No _____
Current accumulation: drums/totes 10 roll offs Is the disposal of this material controlled under TSCA (PCB >50 ppm,
bulk (gallons) _____ asbestos not amenable to incineration, etc.)?
Yes _____ No ☒

4. SHIPPING INFORMATION

Dimensions or Volume	Material of Construction	Container Type (drum, Gaylord, etc.)
20 cy roll off box	Metal	Roll offs
_____	_____	_____
_____	_____	_____
_____	_____	_____

Bladder drum Y N Overpack Drum Y N

All containers must meet applicable DOT and RCRA requirements.

5. CHEMICAL COMPOSITION

Components including but not limited to 40 CFR 261 Subpart B, C & D, ACGIH/OSHA/CERCLA information provided: Y N

Chemical Components	Concentration Range WT %	PPM
Soil Solids	90 to 99	
DDT	0 to 4	
Tetrachloroethylene	0 to 0.001	
Trichloroethylene	0 to 0.001	
Lead	0 to 0.001	
Debris	0 to 2	
Polymer	0 to <1	
_____	_____ to _____	_____
_____	_____ to _____	_____
_____	_____ to _____	_____
_____	_____ to _____	_____

6. SOURCE OF INFORMATION

Analytical: (please check)
Grab sample ☒ Composite sample _____
MSDS _____ Generator Knowledge _____
Other (please specify) _____

7. SPECIFIC ANALYSIS OF WASTE

Do not leave any blanks in this section. If not present put "n/a"

A. Organic Bound Concentration Range (Wt%)		Total Concentration Range (WT %)	B. Total Metals Content (report in ppm)				
S	n to a	to	Sb	n/a	ppm	Pb	< 400 ppm
Cl	n to a	to	As	11	ppm	Hg	n ppm
F	N to a	to	Ba	n/a	ppm	Ni	n ppm
Br	N to a	to	Be	n/a	ppm	Se	n ppm
I	N to a	to	Cd	n/a	ppm	Ag	n ppm
N	N to a	to	Cr	n/a	ppm	Tl	n ppm
P	n to a	to	Cu	n/a	ppm	Zn	n ppm
C. Does this waste contain:			Mo	n/a	ppm		
PCBs: 0 ppm			Al	n/a	%	Si	n %
1-49 ppm*			Mg	n/a	%	Na	n %
> or equal to 50ppm*			K	n/a	%	Li	n %
Asbestos:				Yes	x		No

Is the material medical waste	_____	Yes	<u>x</u>	No
Is the material radioactive above background ?	_____	Yes	<u>x</u>	No
Insecticides, pesticides, herbicides, rodenticides:	<u>x</u>	Yes+	_____	No
+If yes, identify each and list concentrations: DDT 0.4%				
Dioxin*	_____	Yes	<u>x</u>	No
Total available cyanides > 250 ppm:	_____	Yes	<u>x</u>	No
Amenable Cyanides: (ppm_____)	_____	Yes	<u>x</u>	No
Total available sulfides >500 ppm	_____	Yes	<u>x</u>	No
Hazardous Material Identification System:	ingestion	_____	dermal	_____
eye	inhalation	_____	carcinogen	_____
		_____	other	_____

*If present attach supporting data, including detection limit.

10. EPA AND DOT INFORMATION

A. Is this waste hazardous as defined in 40 CFR Part 261 (OAC) 3745-51?		Yes	<u> x </u>	No	<u> </u>
B. EPA Haz. Waste No.(s)		Reasons for Selection			
<u> D008 </u>		<u> Lead >5 ppm </u>			
<u> D039 </u>		<u> Tetrachloroethylene >0.7ppm </u>			
<u> D040 </u>		<u> Trichloroethylene >0.5 ppm </u>			
<u> </u>		<u> </u>			
<u> </u>		<u> </u>			
<u> </u>		<u> </u>			
<u> </u>		<u> </u>			
<u> </u>		<u> </u>			
C. State Haz. Waste No.(s)		Reason for Selection			
<u> </u>		<u> </u>			
<u> </u>		<u> </u>			
<u> </u>		<u> </u>			
<u> </u>		<u> </u>			
<u> </u>		<u> </u>			
<u> </u>		<u> </u>			
D. DOT description:					
<u> RQNA3077, Hazardous Waste Solid, N.O.S. </u>					
<u> (Tetrachloroethylene, Trichloroethylene, Lead, DDT), 9, PGIII </u>					
<u> </u>					
DOT "Poison inhalation hazard?"		Yes	<u> </u>	No	<u> x </u>
Container label(s)	<u> NA 3077 </u>				
Placards	<u> 9 </u>				

COMMENTS

[illegible]

A. Have treatment standards/methods been established? Yes x No
If yes, refer to 40 CFR 268.40 for the Universal Treatment Standards.

B. Wastewater Non-Wastewater x

C. Is this waste a lab-pack? Yes No x

I hereby certify that I have personally examined and am familiar with the information submitted in this and all attached documents. Based on my inquiry of those individuals immediately responsible for obtaining the information, the submitted information is true, accurate and complete and all known or suspected hazards have been disclosed.

Date _____

Print Title

1

Generator's Nonhazardous Waste Profile Sheet


 Requested Disposal Facility GROWS North/Tullytown

Profile Number _____

☐ Renewal for Profile Number _____

Waste Approval Expiration Date _____

A. Waste Generator Facility Information (must reflect location of waste generation/origin)

- | | |
|---|---|
| 1. Generator Name: <u>Honeywell International Inc.</u> | 7. Email Address: <u>russell.davis2@honeywell.com</u> |
| 2. Site Address: <u>6300 Philadelphia Pike</u> | 8. Phone: <u>302-791-6748</u> 9. FAX: _____ |
| 3. City/ZIP: <u>Marcus Hook</u> | 10. NAICS Code: <u>325188, 325199</u> |
| 4. State: <u>PA</u> | 11. Generator USEPA ID #: <u>PAD 981739758</u> |
| 5. County: <u>Delaware</u> | 12. State ID# (if applicable): _____ |
| 6. Contact Name/Title: <u>Rus Davis/HS&E Specialist</u> | |

B. Customer Information ☐ same as above

P. O. Number: _____

- | | |
|---|---|
| 1. Customer Name: <u>Honeywell International Inc.</u> | 6. Phone: <u>973-455-4131</u> FAX: _____ |
| 2. Billing Address: <u>101 Columbia Road</u> | 7. Transporter Name: <u>Lewis Environmental, Inc.</u> |
| 3. City, State and ZIP: <u>Morristown, NJ 07960</u> | 8. Transporter ID # (if appl.): _____ |
| 4. Contact Name: <u>Chris French</u> | 9. Transporter Address: <u>101 Carrol Drive</u> |
| 5. Contact Email: <u>chris.french@honeywell.com</u> | 10. City, State and ZIP: <u>New Castle, DE 19720</u> |

C. Waste Stream Information

1. DESCRIPTION

- a. Common Waste Name: soil
 State Waste Code(s): RWC 506

b. Describe Process Generating Waste or Source of Contamination:

Storm sewer cleaning.

- c. Typical Color(s): black
- d. Strong Odor? ☐ Yes ☒ No Describe: _____
- e. Physical State at 70°F: ☒ Solid ☐ Liquid ☐ Powder ☐ Semi-Solid or Sludge ☐ Other: _____
- f. Layers? ☐ Single layer ☐ Multi-layer ☒ NA
- g. Water Reactive? ☐ Yes ☒ No If Yes, Describe: _____
- h. Free Liquid Range (%): _____ to _____ ☒ NA(solid)
- i. pH Range: ☐ ≤2 ☒ 2.1-12.4 ☐ ≥12.5 ☐ NA(solid) ☐ Actual: _____
- j. Liquid Flash Point: ☐ < 140°F ☐ ≥ 140°F ☒ NA(solid) ☐ Actual: _____
- k. Flammable Solid: ☐ Yes ☒ No
- l. Physical Constituents: List all constituents of waste stream - (e.g. Soil 0-80%, Wood 0-20%): ☐ (See Attached)

Constituents (Total Composition Must be ≥ 100%)	Lower Range	Unit of Measure	Upper Range	Unit of Measure
1. <u>Soil Solids</u>	<u>90</u>	<u>%</u>	<u>99</u>	<u>%</u>
2. <u>Debris</u>	<u>0</u>	<u>%</u>	<u>10</u>	<u>%</u>
3. _____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____
5. _____	_____	_____	_____	_____
6. _____	_____	_____	_____	_____

2. ESTIMATED QUANTITY OF WASTE AND SHIPPING INFORMATION

- a. ☒ One Time Event ☐ Base ☐ Repeat Event
- b. Estimated Annual Quantity: 60-120 ☒ Tons ☐ Cubic Yards ☐ Drums ☐ Gallons ☐ Other (specify): _____
- c. Shipping Frequency: 2 Units per ☐ Month ☒ Quarter ☐ Year ☐ One Time ☐ Other
- d. Is this a U.S. Department of Transportation (USDOT) Hazardous Material? (If yes, answer e.) ☐ Yes ☒ No
- e. USDOT Shipping Description (if applicable): N/A. Not a DOT hazardous material.

3. SAFETY REQUIREMENTS (Handling, PPE, etc.): Avoid direct contact. Level D PPE



Generator's Nonhazardous Waste Profile Sheet

D. Regulatory Status (Please check appropriate responses)

1. Is this a USEPA (40 CFR Part 261)/State hazardous waste? If yes, contact your sales representative. ☐ Yes ☒ No
2. Is this waste included in one or more of categories below (Check all that apply)? If yes, attach supporting documentation. ☐ Yes ☒ No
 - ☐ Delisted Hazardous Waste
 - ☐ Excluded Wastes Under 40 CFR 261.4
 - ☐ Treated Hazardous Waste Debris
 - ☐ Treated Characteristic Hazardous Waste
3. Is the waste from a Federal (40 CFR 300, Appendix B) or state mandated clean-up? If yes, see instructions. ☐ Yes ☒ No
4. Does the waste represented by this waste profile sheet contain radioactive material? ☐ Yes ☐ No
 - a. If yes, is disposal regulated by the Nuclear Regulatory Commission? ☐ Yes ☒ No
 - b. If yes, is disposal regulated by a State Agency for radioactive waste/NORM? ☐ Yes ☐ No
5. Does the waste represented by this waste profile sheet contain concentrations of regulated Polychlorinated Biphenyls (PCBs)? ☐ Yes ☒ No
 - a. If yes, is disposal regulated under TSCA? ☐ Yes ☐ No
6. Does the waste contain untreated, regulated, medical or infectious waste? ☐ Yes ☒ No
7. Does the waste contain asbestos? ☐ Yes ☒ No If Yes, ☐ Friable ☐ Non Friable
8. Is this profile for remediation waste from a facility that is a major source of Hazardous Air Pollutants (Site Remediation NESHAP, 40 CFR 63 subpart GGGGG)? ☐ Yes ☒ No
If yes, does the waste contain <500 ppmw VOHAPs at the point of determination? ☐ Yes ☒ No

E. Generator Certification (Please read and certify by signature below)

By signing this Generator's Waste Profile Sheet, I hereby certify that all:

1. Information submitted in this profile and all attached documents contain true and accurate descriptions of the waste material;
2. Relevant information within the possession of the Generator regarding known or suspected hazards pertaining to this waste has been disclosed to WM/the Contractor;
3. Analytical data attached pertaining to the profiled waste was derived from testing a representative sample in accordance with 40 CFR 261.20(c) or equivalent rules; and
4. Changes that occur in the character of the waste (i.e. changes in the process or new analytical) will be identified by the Generator and disclosed to WM (and the Contractor if applicable) prior to providing the waste to WM (and the Contractor if applicable).
5. Check all that apply:
 - ☒ Attached analytical pertains to the waste. Identify laboratory & sample ID #'s and parameters tested:
Accutest Laboratories, WC-101011-01, WC-101011-02, Full TCLP and PA Form U parameters # Pages: 23
 - ☐ Only the analyses identified on the attachment pertain to the waste (identify by laboratory & sample ID #'s and parameters tested).
Attachment #: _____
 - ☐ Additional information necessary to characterize the profiled waste has been attached (other than analytical).
Indicate the number of attached pages: _____
 - ☒ I am an agent signing on behalf of the Generator, and the delegation of authority to me from the Generator for this signature is available upon request.
 - ☐ By Generator process knowledge, the following waste is not a listed waste and is below all TCLP regulatory limits.

Certification Signature: _____

Title: Sr. Principal Geologist

Company Name: AMEC E&I

Name (Print): Richard Karr as agent for

Date: October 20, 2011

FOR WM USE ONLY

Management Method: ☐ Landfill ☐ Bioremediation

Approval Decision: ☐ Approved ☐ Not Approved

☐ Non-hazardous solidification ☐ Other: _____

Waste Approval Expiration Date: _____

Management Facility Precautions, Special Handling Procedures or Limitation on approval:

- ☐ Shall not contain free liquid
- ☐ Shipment must be scheduled into disposal facility
- ☐ Approval Number must accompany each shipment
- ☐ Waste Manifest must accompany load

WM Authorization Name / Title: _____

Date: _____

State Authorization (if Required): _____

Date: _____



Certificate of Non Hazardous Waste

I, the undersigned, being duly authorized by my company certify that the wastestream(s) we are disposing at the G.R.O.W.S. Landfill, G.R.O.W.S. North Landfill, Tullytown Resource Recovery Facility, Mountain View Reclamation Landfill, Alliance Sanitary Landfill, Grand Central Sanitary Landfill and/or the Pine Grove Landfill is/are not a characteristic hazardous waste as defined in 40 CFR, Sections 261.20 to 261.24, and/or is not a listed hazardous waste as defined in 40 CFR, Sections 261.30 to 261.34. Furthermore, based on generator's knowledge of the company's process, TCLP and Total Characteristics not tested for are known not to be present in the concentrations equal to or greater than the value specified in the TC Rule 40 CFR Part 261.24.

Signature: _____

A handwritten signature in black ink, appearing to read 'R. Karr'.

Date: October 20, 2011

Printed Name: Richard Karr as agent for

Form



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM U**REQUEST TO PROCESS OR DISPOSE OF RESIDUAL WASTE**

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form U, reference the item number and identify the date prepared. The date on attached sheets needs to match the date noted below.

Date Prepared/Revised 10/20/2011

DEP USE ONLY

Date Received & General Notes

SECTION A. LANDFILL CLIENT (LANDFILL OR PROCESSING FACILITY OWNER) INFORMATION

DEP Client ID# 62425
DEP Client Type / Code Pennsylvania Corporation

Organization Name or Registered Fictitious Name
Waste Management Disposal Services of PA, Inc.

SECTION B. LANDFILL SITE (LANDFILL OR PROCESSING FACILITY) INFORMATION

DEP Site ID# Site Name Landfill Permit ID#
G.R.O.W.S. North Landfill 101680

Site Contact Last Name First Name MI Suffix
LaCoe Michael J.

Site Contact Title Site Contact Email Address
Waste Approvals Manager mlacoe@wm.com

SECTION C. GENERATOR CLIENT (GENERATOR OF THE WASTE) INFORMATION

Company Name DEP Generator ID#
Honeywell International Inc. PAD981739758

Company Contact Last Name First Name MI Suffix
Davis Russell

Company Mailing Address Line 1 Company Mailing Address Line 2
6300 Philadelphia Pike

Company Address Last Line - City State Zip+4 Country
Marcus Hook PA 19061 USA

Company Phone Ext Company Email Address
302-791-6748 russell.davis2@honeywell.com

Company Contact Last Name First Name MI Suffix

Contact Phone Ext Contact Email Address

If a Subsidiary, Name of Parent Company

Is the waste generated at the Company Mailing Address (noted above)? ☒ Yes ☐ No
If 'No', describe location of waste generation and storage.

Township County State

SECTION D. WASTE DESCRIPTION

Residual Waste Code	Residual Waste Code Description	Amount	Unit of Measure		Time Frame
506	contaminated soil	120	<input type="checkbox"/> cu yd	<input type="checkbox"/> gal	30 days
			<input type="checkbox"/> lb	<input checked="" type="checkbox"/> ton	<input type="checkbox"/> One Time

1. GENERAL PROPERTIES

a. pH Range 5 to 7.5 (based on analyses or knowledge)

b. Physical State ☐ Liquid Waste (EPA Method 9095)
☒ Solid (EPA Method 9095)
☐ Gas (ambient temperature & pressure)

c. Physical Appearance Color black Odor slight chemical

Number of Solid or Liquid Phases of Separation 1

Describe each phase of separation.

wet soil solids dewatered by addition of polymert powder.

d. Attached is information from the generator certifying that a hazardous waste determination has been done and that the waste is not hazardous waste as defined in 40 CFR 261, as incorporated by reference at 25 Pa. Code 261a.1. ☒ Yes ☐ No
Caution: If 'No', the application form is incomplete.

e. Is the waste treated hazardous waste? ☐ Yes ☒ No
If 'Yes', list the hazardous waste code(s) that apply to the hazardous waste before treatment.

If 'Yes', what treatment option was selected?

What limit was required to be met by the treatment option?

Provided a copy of the certification required under 40 CFR 268.7(a), as incorporated by reference at 25 Pa. Code 268a.1, that the waste meets all the land disposal restriction requirements, as specified in 40 CFR Part 268, Subpart D (Land Disposal Restrictions-Treatment Standards). ☐ Yes ☐ No

f. Has the waste been delisted as a hazardous waste by DEP or US EPA? ☐ Yes ☐ No ☒ N/A

g. Has the waste been accepted for disposal/processing at another Pennsylvania facility? ☐ Yes ☒ No
If 'Yes', list the facility permit ID number(s).

h. Has an application for disposal/processing of the waste at another Pennsylvania facility been submitted? ☐ Yes ☒ No
If 'Yes', list the facility permit ID number(s).

2. ANALYSIS ATTACHMENTS

a. Has a detailed physical, chemical and radiological characterization of the waste and its leachate been conducted? ☒ Yes ☐ No
If 'No', provide detailed explanation supporting use of generator knowledge in lieu of actual analysis.

If 'Yes', attached is a description of the waste sampling methods in accordance with the waste sampling plan as required in §271.611(a)(3) or §287.132(a)(3) and the *Final Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities* (Document Number 250-3100-001). ☐ Yes ☒ No

b. Laboratory Accreditation Number

3. PROCESS DESCRIPTION & SCHEMATIC ATTACHMENTS

a. Attached is a detailed description of the manufacturing and/or pollution control processes producing the waste. ☐ Yes ☒ No
If 'No', provide explanation.
No manufacturing or pollution control process produced the waste.

b. Attached is a schematic of the manufacturing and/or pollution control processes producing the waste. ☐ Yes ☒ No
If 'No', provide explanation.
No manufacturing or pollution control process produced the waste.

c. Attached is the substantiation for a confidentiality claim (if portions of the information submitted are confidential). ☐ Yes ☐ No ☒ N/A

4. CHEMICAL ANALYSIS WAIVER

Categories of residual wastes that qualify for the waiving of chemical analysis by the Department are listed below. Check the appropriate box(es) that match the waste proposed to be accepted for disposal.

- | | |
|--|---|
| <input type="checkbox"/> burnt demolition debris | <input type="checkbox"/> carpet scraps |
| <input type="checkbox"/> cured rubber scrap | <input type="checkbox"/> empty containers (uncontaminated) |
| <input type="checkbox"/> fabric/cloth/textile/leather wastes (excluding treatment sludges) | <input type="checkbox"/> fiberglass insulation scrap |
| <input type="checkbox"/> food wastes (excluding treatment sludges) | <input type="checkbox"/> hot drained used oil filters (non-teme plated) |
| <input type="checkbox"/> metal scrap (excluding powdered grindings or if contaminated with fluids or oils) | <input type="checkbox"/> sawdust (excluding treated wood) |
| <input type="checkbox"/> shingle scrap | <input type="checkbox"/> waste paper |
| <input type="checkbox"/> waste plastic (excluding extrusion manufacturing & uncured resins) | <input type="checkbox"/> wood wastes (excluding treated wood) |
| <input type="checkbox"/> Other (explain) | |

All waste types not listed above must be approved in writing in the permit by the Department prior to processing or disposal facility acceptance.

SECTION E. PROPOSED PROCESSING, STORAGE AND/OR DISPOSAL METHOD

Will any special handling procedures (besides direct disposal) described in the waste acceptance plan, be used when managing the waste? ☐ Yes ☒ No

If 'Yes', describe.

Is this material re-used for construction or operation of the facility? ☐ Yes ☒ No

If 'Yes', describe.

SECTION F. SOURCE REDUCTION STRATEGY

Form 25R must be completed by the generator and attached to this application unless waived in the instructions to that form.

Form 25R attached. ☐ Yes ☐ No ☒ Waived

SECTION G. CERTIFICATION OF PROCESSING OR DISPOSAL FACILITY

I hereby certify that the statements of fact contained therein are true and correct to the best of my knowledge, information and belief. This statement and verification is made subject to the penalties of 18 Pa. C.S.A. Section 4904, relating to un-sworn falsification to authorities.

Name of Responsible Official

Richard Karr as agent for

Title

Sr. Principal Geologist

Signature

10/20/2011

Date



10/19/11

Technical Report for

Mactec

Honeywell-Claymont (North Plant) Route 13, Claymont, DE

348510440

Accutest Job Number: JA88669

Sampling Date: 10/10/11

Report to:

Mactec
1787 Sentry Park West Building 18, Suite 120
Blue Bell, PA 19422
rckarr@mactec.com; JMGARVEY@mactec.com

ATTN: Rick Karr

Total number of pages in report: 23



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

David N. Speis
VP, Laboratory Director

Client Service contact: Marie Meidhof 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, PA, RI, SC, TN, VA, WV

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Test results relate only to samples analyzed.

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Sample Summary

Mactec

Job No: JA88669

Honeywell-Claymont (North Plant) Route 13, Claymont, DE
Project No: 348510440

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JA88669-1	10/10/11	08:50 JG	10/10/11	SO	Sediment	WC-101011-1
JA88669-1A	10/10/11	08:50 JG	10/10/11	SO	Sediment	WC-101011-1
JA88669-2	10/10/11	09:00 JG	10/10/11	SO	Sediment	WC-101011-2
JA88669-2A	10/10/11	09:00 JG	10/10/11	SO	Sediment	WC-101011-2

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	WC-101011-1	Date Sampled:	10/10/11
Lab Sample ID:	JA88669-1	Date Received:	10/10/11
Matrix:	SO - Sediment	Percent Solids:	82.2
Method:	SW846 8260B SW846 1311		
Project:	Honeywell-Claymont (North Plant) Route 13, Claymont, DE		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L243689.D	50	10/13/11	TLR	10/11/11	GP61015	VL6129
Run #2	L243690.D	500	10/13/11	TLR	10/11/11	GP61015	VL6129

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	ND	D018	0.50	0.050	0.012	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	1.0	0.081	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.050	0.013	mg/l	
108-90-7	Chlorobenzene	37.4 ^a	D021	100	0.50	0.19	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.050	0.012	mg/l	
106-46-7	1,4-Dichlorobenzene	0.158	D027	7.5	0.050	0.014	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.050	0.017	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.050	0.020	mg/l	
127-18-4	Tetrachloroethene	0.0311	D039	0.70	0.050	0.013	mg/l	J
79-01-6	Trichloroethene	ND	D040	0.50	0.050	0.012	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.25	0.022	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%	93%	76-120%
17060-07-0	1,2-Dichloroethane-D4	97%	98%	64-135%
2037-26-5	Toluene-D8	91%	91%	76-117%
460-00-4	4-Bromofluorobenzene	96%	95%	72-122%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 261.6/96)
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-101011-1	Date Sampled:	10/10/11
Lab Sample ID:	JA88669-1	Date Received:	10/10/11
Matrix:	SO - Sediment	Percent Solids:	82.2
Method:	SW846 8270D SW846 3510C		
Project:	Honeywell-Claymont (North Plant) Route 13, Claymont, DE		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3P6634.D	1	10/14/11	KLS	10/13/11	OP52453	E3P323
Run #2							

Run #	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	D023	200	0.020	0.010	mg/l	
	3&4-Methylphenol	ND	D024	200	0.020	0.0093	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.016	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.013	mg/l	
106-46-7	1,4-Dichlorobenzene	0.0115	D027	7.5	0.020	0.0036	mg/l	J
121-14-2	2,4-Dinitrotoluene	ND	D030	0.13	0.020	0.0043	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0034	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.010	0.0051	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0055	mg/l	
98-95-3	Nitrobenzene	0.0245	D036	2.0	0.020	0.0042	mg/l	
110-86-1	Pyridine	0.0429	D038	5.0	0.020	0.0032	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	27%		13-68%
4165-62-2	Phenol-d5	15%		10-49%
118-79-6	2,4,6-Tribromophenol	120%		37-130%
4165-60-0	Nitrobenzene-d5	89%		25-112%
321-60-8	2-Fluorobiphenyl	85%		31-106%
1718-51-0	Terphenyl-d14	94%		14-122%

ND = Not detected MDL - Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 261.6/96)
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	WC-101011-1		
Lab Sample ID:	JA88669-1	Date Sampled:	10/10/11
Matrix:	SO - Sediment	Date Received:	10/10/11
Method:	SW846 8151 SW846 3510C	Percent Solids:	82.2
Project:	Honeywell-Claymont (North Plant) Route 13, Claymont, DE		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	WW104560.D	1	10/16/11	TDR	10/13/11	OP52447	GWW3680
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	10.0 ml
Run #2		

Herbicide TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
94-75-7	2,4-D	ND	D016	10	0.0050	0.0013	mg/l	
93-72-1	2,4,5-TP (Silvex)	ND	D017	1.0	0.0015	0.00018	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	168% ^a		50-142%
19719-28-9	2,4-DCAA	97%		50-142%

(a) Outside control limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 261.6/96)
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-101011-1	
Lab Sample ID:	JA88669-1	Date Sampled: 10/10/11
Matrix:	SO - Sediment	Date Received: 10/10/11
Method:	SW846 8081B SW846 3510C	Percent Solids: 82.2
Project:	Honeywell-Claymont (North Plant) Route 13, Claymont, DE	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3G59307.D	1	10/18/11	TDR	10/18/11	OP52498	G3G2148
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	10.0 ml
Run #2		

Pesticide TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	D013	0.40	0.00010	0.000041	mg/l	
12789-03-6	Chlordane	ND	D020	0.030	0.0050	0.0024	mg/l	
72-20-8	Endrin	ND	D012	0.020	0.00010	0.000064	mg/l	
76-44-8	Heptachlor	ND	D031	0.0080	0.00010	0.000084	mg/l	
1024-57-3	Heptachlor epoxide	ND	D031	0.0080	0.00010	0.000038	mg/l	
72-43-5	Methoxychlor	0.0022	D014	10	0.00020	0.000082	mg/l	
8001-35-2	Toxaphene	ND	D015	0.50	0.0025	0.0015	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	1114% ^a		30-137%
877-09-8	Tetrachloro-m-xylene	1324% ^a		30-137%
2051-24-3	Decachlorobiphenyl	81%		10-137%
2051-24-3	Decachlorobiphenyl	67%		10-137%

(a) Outside control limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 261.6/96)
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-101011-1		
Lab Sample ID:	JA88669-1	Date Sampled:	10/10/11
Matrix:	SO - Sediment	Date Received:	10/10/11
Method:	SW846 8082A SW846 3545A	Percent Solids:	82.2
Project:	Honeywell-Claymont (North Plant) Route 13, Claymont, DE		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G59727.D	10	10/17/11	AZ	10/11/11	OP52387	G2G2197
Run #2							

	Initial Weight	Final Volume
Run #1	17.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	350	92	ug/kg	
11104-28-2	Aroclor 1221	ND	350	210	ug/kg	
11141-16-5	Aroclor 1232	ND	350	180	ug/kg	
53469-21-9	Aroclor 1242	ND	350	110	ug/kg	
12672-29-6	Aroclor 1248	ND	350	110	ug/kg	
11097-69-1	Aroclor 1254	ND	350	170	ug/kg	
11096-82-5	Aroclor 1260	ND	350	120	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	34555% ^a		22-141%
877-09-8	Tetrachloro-m-xylene	72682% ^a		22-141%
2051-24-3	Decachlorobiphenyl	1436% ^a		18-163%
2051-24-3	Decachlorobiphenyl	1077% ^a		18-163%

(a) Outside control limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: WC-101011-1

Lab Sample ID: JA88669-1

Matrix: SO - Sediment

Date Sampled: 10/10/11

Date Received: 10/10/11

Percent Solids: 82.2

Project: Honeywell-Claymont (North Plant) Route 13, Claymont, DE

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.50	D004	5.0	0.50	mg/l	1	10/12/11	10/15/11 ND	SW846 6010C ²	SW846 3010A ³
Barium	1.6	D005	100	1.0	mg/l	1	10/12/11	10/15/11 ND	SW846 6010C ²	SW846 3010A ³
Cadmium	0.012	D006	1.0	0.0050	mg/l	1	10/12/11	10/15/11 ND	SW846 6010C ²	SW846 3010A ³
Chromium	< 0.010	D007	5.0	0.010	mg/l	1	10/12/11	10/15/11 ND	SW846 6010C ²	SW846 3010A ³
Copper	< 0.025			0.025	mg/l	1	10/12/11	10/15/11 ND	SW846 6010C ²	SW846 3010A ³
Lead	1.6	D008	5.0	0.50	mg/l	1	10/12/11	10/15/11 ND	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	10/13/11	10/13/11 VK	SW846 7470A ¹	SW846 7470A ⁴
Nickel	0.21			0.040	mg/l	1	10/12/11	10/15/11 ND	SW846 6010C ²	SW846 3010A ³
Selenium	< 0.50	D010	1.0	0.50	mg/l	1	10/12/11	10/15/11 ND	SW846 6010C ²	SW846 3010A ³
Silver	< 0.010	D011	5.0	0.010	mg/l	1	10/12/11	10/15/11 ND	SW846 6010C ²	SW846 3010A ³
Zinc	2.2			0.10	mg/l	1	10/12/11	10/15/11 ND	SW846 6010C ²	SW846 3010A ³

(1) Instrument QC Batch: MA27265

(2) Instrument QC Batch: MA27277

(3) Prep QC Batch: MP60702

(4) Prep QC Batch: MP60723

RL = Reporting Limit

MCL = Maximum Contamination Level (40 CFR 261.6/96)

Report of Analysis

Client Sample ID: WC-101011-1**Lab Sample ID:** JA88669-1**Matrix:** SO - Sediment**Date Sampled:** 10/10/11**Date Received:** 10/10/11**Percent Solids:** 82.2**Project:** Honeywell-Claymont (North Plant) Route 13, Claymont, DE**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 12	12	mg/kg	1	10/15/11 12:28	CW	SW846 CHAP7/9012 B
HEM Oil and Grease	67200	640	mg/kg	1	10/15/11	JOO	SW846 9071B
Ignitability (Flashpoint)	> 200		Deg. F	1	10/17/11	JOO	SW846 CHAP7/ASTM D93
Paint Filter Test ^a	< 0.50	0.50	ml/100g	1	10/17/11	JOO	SW846 9095B
Solids, Percent	82.2		%	1	10/13/11	JB	SM18 2540G
Solids, Total	824000	100	mg/kg	1	10/12/11	DD	SM18 2540G
Solids, Total Volatile (wet wt.)	124000	100	mg/kg	1	10/12/11	DD	SM18 2540G
Sulfide Reactivity	< 120	120	mg/kg	1	10/17/11	ST	SW846 CHAP7/9034
pH	7.49		su	1	10/17/11	JOO	SW846 9045C,D
pH, Step 1 TCLP	9.12		su	1	10/13/11	MP	SW846 1311
pH, Step 2 TCLP	1.88		su	1	10/13/11	MP	SW846 1311
pH, TCLP Leachate	5.15		su	1	10/13/11	MP	SW846 1311

(a) No free liquids.

RL = Reporting Limit

Report of Analysis

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2.2

2

Client Sample ID: WC-101011-1**Lab Sample ID:** JA88669-1A**Matrix:** SO - Sediment**Date Sampled:** 10/10/11**Date Received:** 10/10/11**Percent Solids:** 82.2**Project:** Honeywell-Claymont (North Plant) Route 13, Claymont, DE

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Ammonia-ASTM Leachate ^a	< 0.20	0.20	mg/l	1	10/15/11 10:30	CW	SM20 4500NH3G
COD-ASTM Leachate ^a	50.4	20	mg/l	1	10/17/11	JA	SM205220C, HACH 8000
HEM Oil & Grease-ASTM L ^a	< 5.1	5.1	mg/l	1	10/15/11	JOO	EPA 1664A
Solids, Total-ASTM Leachat ^a	171	10	mg/l	1	10/13/11	DD	SM20 2540B

(a) Result reported for Neutral Leachate ASTM D3987.

RL = Reporting Limit

Report of Analysis

Client Sample ID: WC-101011-2

Lab Sample ID: JA88669-2

Date Sampled: 10/10/11

Matrix: SO - Sediment

Date Received: 10/10/11

Method: SW846 8260B SW846 1311

Percent Solids: 72.3

Project: Honeywell-Claymont (North Plant) Route 13, Claymont, DE

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L243722.D	10	10/14/11	TLR	10/11/11	GP61015	VL6131
Run #2	S151318.D	250	10/17/11	NT	10/11/11	GP61015	VS6212

Purge Volume

Run #1 5.0 ml

Run #2 5.0 ml

VOA TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	0.0037	D018	0.50	0.010	0.0023	mg/l	J
78-93-3	2-Butanone (MEK)	ND	D035	200	0.20	0.016	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.010	0.0026	mg/l	
108-90-7	Chlorobenzene	34.2 ^a	D021	100	0.25	0.097	mg/l	
67-66-3	Chloroform	0.0274	D022	6.0	0.010	0.0023	mg/l	
106-46-7	1,4-Dichlorobenzene	0.0683	D027	7.5	0.010	0.0028	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.010	0.0033	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.010	0.0040	mg/l	
127-18-4	Tetrachloroethene	0.0490	D039	0.70	0.010	0.0027	mg/l	
79-01-6	Trichloroethene	0.0346	D040	0.50	0.010	0.0024	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.050	0.0044	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%	100%	76-120%
17060-07-0	1,2-Dichloroethane-D4	88%	97%	64-135%
2037-26-5	Toluene-D8	90%	105%	76-117%
460-00-4	4-Bromofluorobenzene	97%	102%	72-122%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 261.6/96)
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-101011-2	Date Sampled:	10/10/11
Lab Sample ID:	JA88669-2	Date Received:	10/10/11
Matrix:	SO - Sediment	Percent Solids:	72.3
Method:	SW846 8270D SW846 3510C		
Project:	Honeywell-Claymont (North Plant) Route 13, Claymont, DE		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3P6633.D	1	10/14/11	KLS	10/13/11	OP52453	E3P323
Run #2							

Run #	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	D023	200	0.020	0.010	mg/l	
	3&4-Methylphenol	ND	D024	200	0.020	0.0093	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.016	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.013	mg/l	
106-46-7	1,4-Dichlorobenzene	0.0306	D027	7.5	0.020	0.0036	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	D030	0.13	0.020	0.0043	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0034	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.010	0.0051	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0055	mg/l	
98-95-3	Nitrobenzene	0.0343	D036	2.0	0.020	0.0042	mg/l	
110-86-1	Pyridine	0.0526	D038	5.0	0.020	0.0032	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	34%		13-68%
4165-62-2	Phenol-d5	15%		10-49%
118-79-6	2,4,6-Tribromophenol	145% ^a		37-130%
4165-60-0	Nitrobenzene-d5	97%		25-112%
321-60-8	2-Fluorobiphenyl	92%		31-106%
1718-51-0	Terphenyl-d14	98%		14-122%

(a) Outside control limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 261.6/96)
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

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2.3
2

Client Sample ID:	WC-101011-2	Date Sampled:	10/10/11
Lab Sample ID:	JA88669-2	Date Received:	10/10/11
Matrix:	SO - Sediment	Percent Solids:	72.3
Method:	SW846 8151 SW846 3510C		
Project:	Honeywell-Claymont (North Plant) Route 13, Claymont, DE		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	WW104561.D	1	10/16/11	TDR	10/13/11	OP52447	GW3680
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	10.0 ml
Run #2		

Herbicide TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
94-75-7	2,4-D	ND	D016	10	0.0050	0.0013	mg/l	
93-72-1	2,4,5-TP (Silvex)	ND	D017	1.0	0.0015	0.00018	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	210% ^a		50-142%
19719-28-9	2,4-DCAA	74%		50-142%

(a) Outside control limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 261.6/96)
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WC-101011-2		
Lab Sample ID:	JA88669-2	Date Sampled:	10/10/11
Matrix:	SO - Sediment	Date Received:	10/10/11
Method:	SW846 8081B SW846 3510C	Percent Solids:	72.3
Project:	Honeywell-Claymont (North Plant) Route 13, Claymont, DE		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	3G59308.D	10	10/18/11	TDR	10/18/11	OP52498	G3G2147
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	10.0 ml
Run #2		

Pesticide TCLP Leachate

TCLP Leachate method SW846 1311

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	D013	0.40	0.0010	0.00041	mg/l	
12789-03-6	Chlordane	ND	D020	0.030	0.050	0.024	mg/l	
72-20-8	Endrin	ND	D012	0.020	0.0010	0.00064	mg/l	
76-44-8	Heptachlor	ND	D031	0.0080	0.0010	0.00084	mg/l	
1024-57-3	Heptachlor epoxide	ND	D031	0.0080	0.0010	0.00038	mg/l	
72-43-5	Methoxychlor	ND	D014	10	0.0020	0.00082	mg/l	
8001-35-2	Toxaphene	ND	D015	0.50	0.025	0.015	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	2042% ^b		30-137%
877-09-8	Tetrachloro-m-xylene	1171% ^b		30-137%
2051-24-3	Decachlorobiphenyl	100%		10-137%
2051-24-3	Decachlorobiphenyl	81%		10-137%

(a) Diluted due to high concentration of non-target compound.

(b) Outside control limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

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2

Client Sample ID:	WC-101011-2		
Lab Sample ID:	JA88669-2	Date Sampled:	10/10/11
Matrix:	SO - Sediment	Date Received:	10/10/11
Method:	SW846 8082A SW846 3545A	Percent Solids:	72.3
Project:	Honeywell-Claymont (North Plant) Route 13, Claymont, DE		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G59690.D	10	10/14/11	AZ	10/11/11	OP52387	G2G2195
Run #2							

	Initial Weight	Final Volume
Run #1	17.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	400	100	ug/kg	
11104-28-2	Aroclor 1221	ND	400	240	ug/kg	
11141-16-5	Aroclor 1232	ND	400	200	ug/kg	
53469-21-9	Aroclor 1242	ND	400	130	ug/kg	
12672-29-6	Aroclor 1248	ND	400	120	ug/kg	
11097-69-1	Aroclor 1254	ND	400	190	ug/kg	
11096-82-5	Aroclor 1260	ND	400	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	54372% ^a		22-141%
877-09-8	Tetrachloro-m-xylene	220817% ^a		22-141%
2051-24-3	Decachlorobiphenyl	13412% ^a		18-163%
2051-24-3	Decachlorobiphenyl	5167% ^a		18-163%

(a) Outside control limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: WC-101011-2**Lab Sample ID:** JA88669-2**Matrix:** SO - Sediment**Date Sampled:** 10/10/11**Date Received:** 10/10/11**Percent Solids:** 72.3**Project:** Honeywell-Claymont (North Plant) Route 13, Claymont, DE**Metals Analysis, TCLP Leachate SW846 1311**

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 0.50	D004	5.0	0.50	mg/l	1	10/12/11	10/15/11 ND	SW846 6010C ²	SW846 3010A ³
Barium	1.7	D005	100	1.0	mg/l	1	10/12/11	10/15/11 ND	SW846 6010C ²	SW846 3010A ³
Cadmium	0.0078	D006	1.0	0.0050	mg/l	1	10/12/11	10/15/11 ND	SW846 6010C ²	SW846 3010A ³
Chromium	0.014	D007	5.0	0.010	mg/l	1	10/12/11	10/15/11 ND	SW846 6010C ²	SW846 3010A ³
Copper	< 0.025			0.025	mg/l	1	10/12/11	10/15/11 ND	SW846 6010C ²	SW846 3010A ³
Lead	1.4	D008	5.0	0.50	mg/l	1	10/12/11	10/15/11 ND	SW846 6010C ²	SW846 3010A ³
Mercury	< 0.00020	D009	0.20	0.00020	mg/l	1	10/13/11	10/13/11 VK	SW846 7470A ¹	SW846 7470A ⁴
Nickel	0.23			0.040	mg/l	1	10/12/11	10/15/11 ND	SW846 6010C ²	SW846 3010A ³
Selenium	< 0.50	D010	1.0	0.50	mg/l	1	10/12/11	10/15/11 ND	SW846 6010C ²	SW846 3010A ³
Silver	< 0.010	D011	5.0	0.010	mg/l	1	10/12/11	10/15/11 ND	SW846 6010C ²	SW846 3010A ³
Zinc	1.3			0.10	mg/l	1	10/12/11	10/15/11 ND	SW846 6010C ²	SW846 3010A ³

(1) Instrument QC Batch: MA27265

(2) Instrument QC Batch: MA27277

(3) Prep QC Batch: MP60702

(4) Prep QC Batch: MP60723

RL = Reporting Limit

MCL = Maximum Contamination Level (40 CFR 261.6/96)

Report of Analysis

Client Sample ID: WC-101011-2**Lab Sample ID:** JA88669-2**Matrix:** SO - Sediment**Date Sampled:** 10/10/11**Date Received:** 10/10/11**Percent Solids:** 72.3**Project:** Honeywell-Claymont (North Plant) Route 13, Claymont, DE

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide Reactivity	< 14	14	mg/kg	1	10/15/11 12:29	CW	SW846 CHAP7/9012 B
HEM Oil and Grease	49600	670	mg/kg	1	10/15/11	JOO	SW846 9071B
Ignitability (Flashpoint)	> 200		Deg. F	1	10/17/11	JOO	SW846 CHAP7/ASTM D93
Paint Filter Test ^a	< 0.50	0.50	ml/100g	1	10/17/11	JOO	SW846 9095B
Solids, Percent	72.3		%	1	10/13/11	JB	SM18 2540G
Solids, Total	771000	100	mg/kg	1	10/12/11	DD	SM18 2540G
Solids, Total Volatile (wet wt.)	118000	100	mg/kg	1	10/12/11	DD	SM18 2540G
Sulfide Reactivity	< 140	140	mg/kg	1	10/17/11	ST	SW846 CHAP7/9034
pH	7.35		su	1	10/17/11	JOO	SW846 9045C,D
pH, Step 1 TCLP	8.59		su	1	10/13/11	MP	SW846 1311
pH, Step 2 TCLP	1.83		su	1	10/13/11	MP	SW846 1311
pH, TCLP Leachate	5.17		su	1	10/13/11	MP	SW846 1311

(a) No free liquids.

RL = Reporting Limit

Report of Analysis

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2

Client Sample ID: WC-101011-2	Date Sampled: 10/10/11
Lab Sample ID: JA88669-2A	Date Received: 10/10/11
Matrix: SO - Sediment	Percent Solids: 72.3
Project: Honeywell-Claymont (North Plant) Route 13, Claymont, DE	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Ammonia-ASTM Leachate ^a	0.20	0.20	mg/l	1	10/15/11 10:31	CW	SM20 4500NH3G
COD-ASTM Leachate ^a	43.2	20	mg/l	1	10/17/11	JA	SM205220C, HACH 8000
HEM Oil & Grease-ASTM L ^a < 5.1	5.1	5.1	mg/l	1	10/15/11	JOO	EPA 1664A
Solids, Total-ASTM Leachat ^a 120	10	10	mg/l	1	10/13/11	DD	SM20 2540B

(a) Result reported for Neutral Leachate ASTM D3987.

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



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FIDEX Tracking # 16466 123	Bottle Order Control #
Account Quote #	Account Job # TA88660

Client / Reporting Information			Project Information			Requested Analysis (see TEST CODE sheet)										Matrix Codes
Company Name AMEC			Project Name Honeywell Claymont			<div style="writing-mode: vertical-rl; transform: rotate(180deg);"> Note Classification for Form U Parameters </div>										DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SC - Soil SL - Sludge SED - Sediment CL - Oil LC - Other Liquid AL - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank
Street Address 1787 Sandy Run Ste 100			Street 1400 Philadelphia Place													
City Blue Bell PA 19422			City Claymont DE													
Project Contact Rick Karr			Street Address 3585110440													
Phone # 2156190292 / 2156190297			Client Purchase Order # 4843250369													
Facsimile (Fax) # 4843250369			City Claymont DE													
Sample(s) Name(s) Jesse Garvey			Project Manager Rick Karr													
Field ID / Point of Collection MECH/CL Val #			Collection Date Time Sampled By Mat's # of bottles			Number of preserved bottles NO NOH NOH2 NOH3 NOH4 NOH5 NOH6 NOH7 NOH8 NOH9 NOH10 NOH11 NOH12 NOH13 NOH14 NOH15 NOH16 NOH17 NOH18 NOH19 NOH20 NOH21 NOH22 NOH23 NOH24 NOH25 NOH26 NOH27 NOH28 NOH29 NOH30 NOH31 NOH32 NOH33 NOH34 NOH35 NOH36 NOH37 NOH38 NOH39 NOH40 NOH41 NOH42 NOH43 NOH44 NOH45 NOH46 NOH47 NOH48 NOH49 NOH50 NOH51 NOH52 NOH53 NOH54 NOH55 NOH56 NOH57 NOH58 NOH59 NOH60 NOH61 NOH62 NOH63 NOH64 NOH65 NOH66 NOH67 NOH68 NOH69 NOH70 NOH71 NOH72 NOH73 NOH74 NOH75 NOH76 NOH77 NOH78 NOH79 NOH80 NOH81 NOH82 NOH83 NOH84 NOH85 NOH86 NOH87 NOH88 NOH89 NOH90 NOH91 NOH92 NOH93 NOH94 NOH95 NOH96 NOH97 NOH98 NOH99 NOH100 NOH101 NOH102 NOH103 NOH104 NOH105 NOH106 NOH107 NOH108 NOH109 NOH110 NOH111 NOH112 NOH113 NOH114 NOH115 NOH116 NOH117 NOH118 NOH119 NOH120 NOH121 NOH122 NOH123 NOH124 NOH125 NOH126 NOH127 NOH128 NOH129 NOH130 NOH131 NOH132 NOH133 NOH134 NOH135 NOH136 NOH137 NOH138 NOH139 NOH140 NOH141 NOH142 NOH143 NOH144 NOH145 NOH146 NOH147 NOH148 NOH149 NOH150 NOH151 NOH152 NOH153 NOH154 NOH155 NOH156 NOH157 NOH158 NOH159 NOH160 NOH161 NOH162 NOH163 NOH164 NOH165 NOH166 NOH167 NOH168 NOH169 NOH170 NOH171 NOH172 NOH173 NOH174 NOH175 NOH176 NOH177 NOH178 NOH179 NOH180 NOH181 NOH182 NOH183 NOH184 NOH185 NOH186 NOH187 NOH188 NOH189 NOH190 NOH191 NOH192 NOH193 NOH194 NOH195 NOH196 NOH197 NOH198 NOH199 NOH200 NOH201 NOH202 NOH203 NOH204 NOH205 NOH206 NOH207 NOH208 NOH209 NOH210 NOH211 NOH212 NOH213 NOH214 NOH215 NOH216 NOH217 NOH218 NOH219 NOH220 NOH221 NOH222 NOH223 NOH224 NOH225 NOH226 NOH227 NOH228 NOH229 NOH230 NOH231 NOH232 NOH233 NOH234 NOH235 NOH236 NOH237 NOH238 NOH239 NOH240 NOH241 NOH242 NOH243 NOH244 NOH245 NOH246 NOH247 NOH248 NOH249 NOH250 NOH251 NOH252 NOH253 NOH254 NOH255 NOH256 NOH257 NOH258 NOH259 NOH260 NOH261 NOH262 NOH263 NOH264 NOH265 NOH266 NOH267 NOH268 NOH269 NOH270 NOH271 NOH272 NOH273 NOH274 NOH275 NOH276 NOH277 NOH278 NOH279 NOH280 NOH281 NOH282 NOH283 NOH284 NOH285 NOH286 NOH287 NOH288 NOH289 NOH290 NOH291 NOH292 NOH293 NOH294 NOH295 NOH296 NOH297 NOH298 NOH299 NOH300 NOH301 NOH302 NOH303 NOH304 NOH305 NOH306 NOH307 NOH308 NOH309 NOH310 NOH311 NOH312 NOH313 NOH314 NOH315 NOH316 NOH317 NOH318 NOH319 NOH320 NOH321 NOH322 NOH323 NOH324 NOH325 NOH326 NOH327 NOH328 NOH329 NOH330 NOH331 NOH332 NOH333 NOH334 NOH335 NOH336 NOH337 NOH338 NOH339 NOH340 NOH341 NOH342 NOH343 NOH344 NOH345 NOH346 NOH347 NOH348 NOH349 NOH350 NOH351 NOH352 NOH353 NOH354 NOH355 NOH356 NOH357 NOH358 NOH359 NOH360 NOH361 NOH362 NOH363 NOH364 NOH365 NOH366 NOH367 NOH368 NOH369 NOH370 NOH371 NOH372 NOH373 NOH374 NOH375 NOH376 NOH377 NOH378 NOH379 NOH380 NOH381 NOH382 NOH383 NOH384 NOH385 NOH386 NOH387 NOH388 NOH389 NOH390 NOH391 NOH392 NOH393 NOH394 NOH395 NOH396 NOH397 NOH398 NOH399 NOH400 NOH401 NOH402 NOH403 NOH404 NOH405 NOH406 NOH407 NOH408 NOH409 NOH410 NOH411 NOH412 NOH413 NOH414 NOH415 NOH416 NOH417 NOH418 NOH419 NOH420 NOH421 NOH422 NOH423 NOH424 NOH425 NOH426 NOH427 NOH428 NOH429 NOH430 NOH431 NOH432 NOH433 NOH434 NOH435 NOH436 NOH437 NOH438 NOH439 NOH440 NOH441 NOH442 NOH443 NOH444 NOH445 NOH446 NOH447 NOH448 NOH449 NOH450 NOH451 NOH452 NOH453 NOH454 NOH455 NOH456 NOH457 NOH458 NOH459 NOH460 NOH461 NOH462 NOH463 NOH464 NOH465 NOH466 NOH467 NOH468 NOH469 NOH470 NOH471 NOH472 NOH473 NOH474 NOH475 NOH476 NOH477 NOH478 NOH479 NOH480 NOH481 NOH482 NOH483 NOH484 NOH485 NOH486 NOH487 NOH488 NOH489 NOH490 NOH491 NOH492 NOH493 NOH494 NOH495 NOH496 NOH497 NOH498 NOH499 NOH500 NOH501 NOH502 NOH503 NOH504 NOH505 NOH506 NOH507 NOH508 NOH509 NOH510 NOH511 NOH512 NOH513 NOH514 NOH515 NOH516 NOH517 NOH518 NOH519 NOH520 NOH521 NOH522 NOH523 NOH524 NOH525 NOH526 NOH527 NOH528 NOH529 NOH530 NOH531 NOH532 NOH533 NOH534 NOH535 NOH536 NOH537 NOH										

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Accutest Laboratories Sample Receipt Summary

Accutest Job Number JA88669

Client:

Date / Time Received: 10/10/2011

Project:

No. Coolers: 1

Airbill #'s:

Delivery Method:

Cooler Security

Y or N

1. Custody Seals Present: ☒ ☐
2. Custody Seals Intact: ☒ ☐

Y or N

3. COC Present: ☒ ☐
4. Smpl Dates/Time OK: ☒ ☐

Cooler Temperature

Y or N

1. Temp criteria achieved: ☒ ☐
2. Cooler temp verification: IR Gun
3. Cooler media: Ice (Bag)

Quality Control Preservation

Y or N N/A

1. Trip Blank present / cooler: ☐ ☐ ☒
2. Trip Blank listed on COC: ☐ ☐ ☒
3. Samples preserved properly: ☒ ☐
4. VOCs headspace free: ☐ ☐ ☒

Sample Integrity - Documentation

Y or N

1. Sample labels present on bottles: ☒ ☐
2. Container labeling complete: ☒ ☐
3. Sample container label / COC agree: ☒ ☐

Sample Integrity - Condition

Y or N

1. Sample recvd within HT: ☒ ☐
2. All containers accounted for: ☒ ☐
3. Condition of sample: Intact

Sample Integrity - Instructions

Y or N N/A

1. Analysis requested is clear: ☒ ☐
2. Bottles received for unspecified tests: ☐ ☒
3. Sufficient volume recvd for analysis: ☒ ☐
4. Compositing instructions clear: ☐ ☐ ☒
5. Filtering instructions clear: ☐ ☐ ☒

Comments

Accutest Laboratories
V: 732.329.0200

2235 US Highway 130
F: 732.329.3499

Dayton, New Jersey
www.accutest.com

JA88669: Chain of Custody
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GENERATOR'S WASTE PROFILE FORM

Generator Information

Generator Name: Honeywell International Inc.
Facility Address: 6300 Philadelphia Pike
Facility City: Marcus Hook State: PA Zip Code: 19061
Waste Pick-Up Address: 6300 Philadelphia Pike, Marcus Hook, PA 19061
SIC Code: 325188, 325199
MSDS Attached? ☐ Yes ☒ No
Contact: Rus Davis
Contact Phone: 302-791-6748
Name of Waste: Non-hazardous waste water
Analytical Data? ☒ Yes ☐ No Attached? ☒ Yes ☐ No

Waste Characteristics

☐ Commercial ☒ Industrial ☐ Municipal ☐ Residential
☐ Food Processing ☐ Gray Water ☐ Ground Water ☐ Rain Water
☐ Holding Tank ☐ Grease ☐ Septage (Domestic) ☐ Oily Waste Water
☐ Sludge (☐ Commercial ☐ Municipal) ☐ Other _____

Description of how the waste is generated: Cleaning water generated by storm sewer cleaning that has been treated through filtration and carbon absorption.

Physical State

Color Clear Odor None % Solids None
☒ Liquid ☐ Sludge ☐ Solid
How Many Layers? 1 Describe: Clear liquid

Quantity of Waste

Total Project Volume in Gallons: 180,000 Total Project Solids in Tons: 0
Other quantity information: _____

Shipping Information

Shipping Frequency: Units 5000 gal Per: ☐ Month ☐ Quarter ☐ Year
☐ One Time Other per tank truck load. All shipped within 1 month.

GENERATOR'S WASTE PROFILE FORM

Page Two

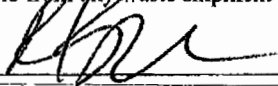
Shipping History

1. Was this waste stream previously transported for disposal at an approved facility? ☐ Yes ☒ No
If yes, can you provide us with the facility's name and the proper shipping name under which the waste was classified?
-

Generator's Certification

1. Is this waste RCRA nonhazardous? ☒ Yes ☐ No If no, please provide details and description.
2. Is the waste represented by this waste profile a categorical waste as defined in 40 CFR 439? ☐ Yes ☒ No
3. Does the waste represented by this waste profile contain concentrations of Polychlorinated Biphenyls (PCBs) regulated by 40 CFR 761? ☐ Yes ☒ No
4. Does the waste represented by this waste profile contain true and accurate descriptions of the waste material, and has all relevant information within the possession of the Generator regarding known or suspected hazards pertaining to the waste been disclosed to the Contractor? ☒ Yes ☐ No
5. Will all changes which occur in the composition of the waste be identified by the Generator and disclosed to the Contractor prior to making the waste available for pumping, transportation and disposal?
☒ Yes ☐ No

Any sample submitted is representative as defined in 40 CFR 261 - Appendix 1 or by using an equivalent method. I authorize Russell Reid to obtain a sample from any waste shipment for purposes of recertification.

Certification Signature:  Title: Sr. Principal Geologist
Name (Please Print): Richard C. Karr
Company Name: AMEC E&I, Inc. Date: Nov. 2, 2011



Western Region Local Limits

POLLUTANT	DAILY MAXIMUM – mg/L
Arsenic (As)	0.075
Cadmium (Cd)	0.05
Copper (Cu)	1.9
Cyanide (Total)	2.0
Lead (Pb)	0.55
Mercury (Hg)	0.04
Nickel (Ni)	2.2
Silver (Ag)	1.4
Chromium (Total) (Cr)	12.0
Hexavalent Chromium (Cr-VI)	0.1
Zinc (Zn)	3.0
Selenium (Se)	0.04
Total Halogenated Organics (TOX)	5.0
Phenolic Compounds	7.0
H ₂ S	10.0
Total CWA Section 307 Compounds	30.0
Any Individual CWA Section 307 Compound (not elsewhere regulated)	5.0

[As amended by resolution 95-11, adopted 11/21/95]

SECTION 105 – PROHIBITED POLLUTANTS

No person shall discharge wastewater containing any of the EPA Priority Pollutants or any of the materials listed herein into DELCORA's facilities or shall have any connection to DELCORA without obtaining written permission from DELCORA:

Acrylonitrile

Aldrin

Alpha BHC
Aluminum
Barium
Benzene
Benzo (a) pyrene
Benzotrithloride (1,2,3,4 trichlorobenzene)
Beryllium
Bis (2-ethylhexyl) phthalate (DEHP)
Bromobenzene
Bromodichloromethane
Bromoform
Carbon tetrachloride
Chlordane
Chlorobenzene
Chlorodibromomethane
Chloroethane
Chloroform
Cumene
DDT/DDE/DDD
Dibutylphthalate
Dichlorobromomethane
Dichloroethyl ether (Bis(2-chloroethyl ether))
Dieldrin
Diisobutylenes
Dimethylnitrosamine
Ethylbenzene
Heptachlor
Hexachlorobutadiene
Hexachlorobenzene
Iron
Isopropylbenzene
Lindane
M-Dichlorobenzene
Methyl Chloride (Chloromethane)

MEK (Methyl Ketone)
MIBK (Methyl Isobutyl Ketone)
Molybdenum
o,m,p-Xylenes
o-Chlorotoluene
o-Dichlorobenzene
p-Chlorotoluene
para-Dichlorobenzene
PCB-1248
PCB-1260
Phenanthrene
Phenols
Pyrene
Styrene
Tetrachloroethylene (Perchloroethylene)
Tin
Titanium
Toluene
Toxaphene (Chlorinated camphene)
Trichloroethylene
Vinyl chloride
1,1,1,2-Tetrachloroethane
1,1,2,2,-Tetrachloroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloropropane
1,1-Dichloroethylene
1,2 trans,dichloroethylene
1,2,3-Trichloropropane
1,2-cis,dichloroethylene
1,2-Dibromo-3-Chloropropane
1,2-Dichloroethane
1,2-Dichloropropane
1,3-Dichloropropane

1,4-Dichlorobenzene (p)

2-Chlorophenol

2,2-Dichloropropane

2,4-Dinitrophenol

2,4-Dinitrotoluene

3,3-Dichlorobenzidene

DELCORA reserves the right to modify this list of prohibited pollutants at any time as may become necessary by virtue of new state, federal or city regulations.

[§105 Added by resolution 95-11, adopted 5/22/91]

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica King of Prussia
1008 W Ninth Ave
King of Prussia, PA 19406
Tel: (610)337-9992

TestAmerica Job ID: 450-766-1
Client Project/Site: AMEC- Honeywell

For:
Lewis Environmental Inc
101 Carroll Drive
New Castle, Delaware 19720

Attn: Tom Schultz



Authorized for release by:
11/01/2011 04:02:06 PM

Ozzy Burgos
Project Manager I
ozzy.burgos@testamericainc.com

Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Sample Summary

Client: Lewis Environmental Inc
Project/Site: AMEC- Honeywell

TestAmerica Job ID: 450-766-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
450-766-1	A1836-10272011-10844	Water	10/27/11 00:00	10/28/11 10:05
450-766-2	A3966-10272011-10844	Water	10/27/11 00:00	10/28/11 10:05
450-766-3	A3983-10272011-10844	Water	10/27/11 00:00	10/28/11 10:05

Case Narrative

Client: Lewis Environmental Inc
Project/Site: AMEC- Honeywell

TestAmerica Job ID: 450-766-1

Job ID: 450-766-1

Laboratory: TestAmerica King of Prussia

Narrative

Job Narrative 450-766-1

Comments

No additional comments.

Receipt

All samples were received in good condition within temperature requirements.

GC/MS VOA

No analytical or quality issues were noted.

GC Semi VOA

Method(s) 8081A: The continuing calibration verification (CCV) for Endosulfan II, Endrin Aldehyde and Endrin Ketone associated with batch 2563 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 8081A: The capping continuing calibration verification (CCV) associated with batch 2563 did not meet control limits. Sample matrix is suspected to have contributed to this failure.

Method(s) 8081A: The following sample(s) was diluted due to the nature of the sample matrix: A3966-10272011-10844 (450-766-2), A3983-10272011-10844 (450-766-3). Elevated reporting limits (RLs) are provided.

Method(s) 8081A: Alpha Chlordane, Endrin, Endrin Aldehyde, Endrin Ketone, Gamma Chlordane, and Methoxychlor are reported as non-detect in LCS/LCSD in batch 2563. This is because the spike level is below the reporting limit. The recoveries were checked and are passing.

Method(s) 8081A: The Endrin breakdown from associated with batch 2563 was outside the method criteria. The samples reported are reshots and confirm with the original analysis.

No other analytical or quality issues were noted.

Metals

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

Definitions/Glossary

Client: Lewis Environmental Inc
Project/Site: AMEC- Honeywell

TestAmerica Job ID: 450-766-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

5

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: Lewis Environmental Inc
Project/Site: AMEC- Honeywell

TestAmerica Job ID: 450-766-1

Client Sample ID: A1836-10272011-10844

Lab Sample ID: 450-766-1

Date Collected: 10/27/11 00:00

Matrix: Water

Date Received: 10/28/11 10:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0		ug/L			11/01/11 13:25	1
1,1,2-Trichloroethane	ND		2.0		ug/L			11/01/11 13:25	1
1,1-Dichloroethane	ND		2.0		ug/L			11/01/11 13:25	1
1,1-Dichloroethene	ND		2.0		ug/L			11/01/11 13:25	1
1,2-Dichloroethane	ND		1.0		ug/L			11/01/11 13:25	1
1,2-Dichloropropane	ND		1.0		ug/L			11/01/11 13:25	1
Benzene	ND		1.0		ug/L			11/01/11 13:25	1
Carbon tetrachloride	ND		1.0		ug/L			11/01/11 13:25	1
Chlorobenzene	ND		2.0		ug/L			11/01/11 13:25	1
Chloroethane	ND		2.0		ug/L			11/01/11 13:25	1
Chloroform	ND		2.0		ug/L			11/01/11 13:25	1
Chloromethane	ND		2.0		ug/L			11/01/11 13:25	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			11/01/11 13:25	1
Ethylbenzene	ND		2.0		ug/L			11/01/11 13:25	1
Methylene Chloride	ND		2.0		ug/L			11/01/11 13:25	1
Tetrachloroethene	ND		1.0		ug/L			11/01/11 13:25	1
Toluene	ND		2.0		ug/L			11/01/11 13:25	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			11/01/11 13:25	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			11/01/11 13:25	1
Trichloroethene	3.7		1.0		ug/L			11/01/11 13:25	1
Vinyl chloride	ND		1.0		ug/L			11/01/11 13:25	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	99		91 - 114					11/01/11 13:25	1
1,2-Dichloroethane-d4 (Surr)	99		85 - 125					11/01/11 13:25	1
Toluene-d8 (Surr)	99		84 - 111					11/01/11 13:25	1
4-Bromofluorobenzene (Surr)	104		86 - 120					11/01/11 13:25	1

Method: 8081A - Organochlorine Pesticides (GC) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.037		ug/L		10/31/11 08:53	11/01/11 12:04	1
alpha-BHC	0.20		0.020		ug/L		10/31/11 08:53	11/01/11 12:04	1
beta-BHC	ND		0.20		ug/L		10/31/11 08:53	11/01/11 12:04	1
delta-BHC	ND		0.30		ug/L		10/31/11 08:53	11/01/11 12:04	1
gamma-BHC (Lindane)	ND		0.20		ug/L		10/31/11 08:53	11/01/11 12:04	1
Technical Chlordane	ND		0.50		ug/L		10/31/11 08:53	11/01/11 12:04	1
alpha-Chlordane	ND		1.0		ug/L		10/31/11 08:53	11/01/11 12:04	1
gamma-Chlordane	ND		1.0		ug/L		10/31/11 08:53	11/01/11 12:04	1
4,4'-DDD	0.33		0.10		ug/L		10/31/11 08:53	11/01/11 12:04	1
4,4'-DDE	ND		0.10		ug/L		10/31/11 08:53	11/01/11 12:04	1
4,4'-DDT	0.71		0.10		ug/L		10/31/11 08:53	11/01/11 12:04	1
Dieldrin	ND		0.030		ug/L		10/31/11 08:53	11/01/11 12:04	1
Endosulfan I	ND		0.40		ug/L		10/31/11 08:53	11/01/11 12:04	1
Endosulfan II	ND		0.40		ug/L		10/31/11 08:53	11/01/11 12:04	1
Endosulfan sulfate	ND		0.40		ug/L		10/31/11 08:53	11/01/11 12:04	1
Endrin	ND		2.0		ug/L		10/31/11 08:53	11/01/11 12:04	1
Endrin aldehyde	ND		0.60		ug/L		10/31/11 08:53	11/01/11 12:04	1
Endrin ketone	ND		1.0		ug/L		10/31/11 08:53	11/01/11 12:04	1
Heptachlor	ND		0.30		ug/L		10/31/11 08:53	11/01/11 12:04	1
Heptachlor epoxide	ND		0.20		ug/L		10/31/11 08:53	11/01/11 12:04	1

Client Sample Results

Client: Lewis Environmental Inc
Project/Site: AMEC- Honeywell

TestAmerica Job ID: 450-766-1

Client Sample ID: A1836-10272011-10844

Lab Sample ID: 450-766-1

Date Collected: 10/27/11 00:00

Matrix: Water

Date Received: 10/28/11 10:05

Method: 8081A - Organochlorine Pesticides (GC) - RA (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methoxychlor	ND		10		ug/L		10/31/11 08:53	11/01/11 12:04	1
Toxaphene	ND		3.0		ug/L		10/31/11 08:53	11/01/11 12:04	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	80		14 - 120				10/31/11 08:53	11/01/11 12:04	1
Tetrachloro-m-xylene	57		10 - 117				10/31/11 08:53	11/01/11 12:04	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	17		1.0		ug/L		11/01/11 08:55	11/01/11 14:45	2
Lead	7.8		0.96		ug/L		11/01/11 08:55	11/01/11 14:45	2

Client Sample ID: A3966-10272011-10844

Lab Sample ID: 450-766-2

Date Collected: 10/27/11 00:00

Matrix: Water

Date Received: 10/28/11 10:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0		ug/L			11/01/11 13:55	1
1,1,2-Trichloroethane	ND		2.0		ug/L			11/01/11 13:55	1
1,1-Dichloroethane	ND		2.0		ug/L			11/01/11 13:55	1
1,1-Dichloroethene	ND		2.0		ug/L			11/01/11 13:55	1
1,2-Dichloroethane	ND		1.0		ug/L			11/01/11 13:55	1
1,2-Dichloropropane	ND		1.0		ug/L			11/01/11 13:55	1
Benzene	ND		1.0		ug/L			11/01/11 13:55	1
Carbon tetrachloride	1.4		1.0		ug/L			11/01/11 13:55	1
Chlorobenzene	ND		2.0		ug/L			11/01/11 13:55	1
Chloroethane	ND		2.0		ug/L			11/01/11 13:55	1
Chloroform	19		2.0		ug/L			11/01/11 13:55	1
Chloromethane	ND		2.0		ug/L			11/01/11 13:55	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			11/01/11 13:55	1
Ethylbenzene	ND		2.0		ug/L			11/01/11 13:55	1
Methylene Chloride	ND		2.0		ug/L			11/01/11 13:55	1
Tetrachloroethene	2.8		1.0		ug/L			11/01/11 13:55	1
Toluene	ND		2.0		ug/L			11/01/11 13:55	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			11/01/11 13:55	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			11/01/11 13:55	1
Trichloroethene	97		1.0		ug/L			11/01/11 13:55	1
Vinyl chloride	1.3		1.0		ug/L			11/01/11 13:55	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	99		91 - 114					11/01/11 13:55	1
1,2-Dichloroethane-d4 (Surr)	99		85 - 125					11/01/11 13:55	1
Toluene-d8 (Surr)	100		84 - 111					11/01/11 13:55	1
4-Bromofluorobenzene (Surr)	104		86 - 120					11/01/11 13:55	1

Method: 8081A - Organochlorine Pesticides (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	8.3		1.0		ug/L		10/31/11 08:53	11/01/11 12:50	10
4,4'-DDT	4.2		1.0		ug/L		10/31/11 08:53	11/01/11 12:50	10

Client Sample Results

Client: Lewis Environmental Inc
Project/Site: AMEC- Honeywell

TestAmerica Job ID: 450-766-1

Client Sample ID: A3966-10272011-10844

Lab Sample ID: 450-766-2

Date Collected: 10/27/11 00:00

Matrix: Water

Date Received: 10/28/11 10:05

Method: 8081A - Organochlorine Pesticides (GC) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.037		ug/L		10/31/11 08:53	11/01/11 12:20	1
alpha-BHC	0.10		0.020		ug/L		10/31/11 08:53	11/01/11 12:20	1
beta-BHC	ND		0.20		ug/L		10/31/11 08:53	11/01/11 12:20	1
delta-BHC	ND		0.30		ug/L		10/31/11 08:53	11/01/11 12:20	1
gamma-BHC (Lindane)	ND		0.20		ug/L		10/31/11 08:53	11/01/11 12:20	1
Technical Chlordane	ND		0.50		ug/L		10/31/11 08:53	11/01/11 12:20	1
alpha-Chlordane	ND		1.0		ug/L		10/31/11 08:53	11/01/11 12:20	1
gamma-Chlordane	ND		1.0		ug/L		10/31/11 08:53	11/01/11 12:20	1
4,4'-DDE	0.39		0.10		ug/L		10/31/11 08:53	11/01/11 12:20	1
Dieldrin	ND		0.030		ug/L		10/31/11 08:53	11/01/11 12:20	1
Endosulfan I	ND		0.40		ug/L		10/31/11 08:53	11/01/11 12:20	1
Endosulfan II	ND		0.40		ug/L		10/31/11 08:53	11/01/11 12:20	1
Endosulfan sulfate	ND		0.40		ug/L		10/31/11 08:53	11/01/11 12:20	1
Endrin	ND		2.0		ug/L		10/31/11 08:53	11/01/11 12:20	1
Endrin aldehyde	ND		0.60		ug/L		10/31/11 08:53	11/01/11 12:20	1
Endrin ketone	ND		1.0		ug/L		10/31/11 08:53	11/01/11 12:20	1
Heptachlor	ND		0.30		ug/L		10/31/11 08:53	11/01/11 12:20	1
Heptachlor epoxide	ND		0.20		ug/L		10/31/11 08:53	11/01/11 12:20	1
Methoxychlor	ND		10		ug/L		10/31/11 08:53	11/01/11 12:20	1
Toxaphene	ND		3.0		ug/L		10/31/11 08:53	11/01/11 12:20	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	85		14 - 120				10/31/11 08:53	11/01/11 12:20	1
Tetrachloro-m-xylene	47	p	10 - 117				10/31/11 08:53	11/01/11 12:20	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.6		1.0		ug/L		11/01/11 08:55	11/01/11 14:50	2
Lead	7.3		0.96		ug/L		11/01/11 08:55	11/01/11 14:50	2

Client Sample ID: A3983-10272011-10844

Lab Sample ID: 450-766-3

Date Collected: 10/27/11 00:00

Matrix: Water

Date Received: 10/28/11 10:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0		ug/L			11/01/11 14:25	1
1,1,2-Trichloroethane	ND		2.0		ug/L			11/01/11 14:25	1
1,1-Dichloroethane	ND		2.0		ug/L			11/01/11 14:25	1
1,1-Dichloroethene	ND		2.0		ug/L			11/01/11 14:25	1
1,2-Dichloroethane	ND		1.0		ug/L			11/01/11 14:25	1
1,2-Dichloropropane	ND		1.0		ug/L			11/01/11 14:25	1
Benzene	ND		1.0		ug/L			11/01/11 14:25	1
Carbon tetrachloride	5.6		1.0		ug/L			11/01/11 14:25	1
Chlorobenzene	ND		2.0		ug/L			11/01/11 14:25	1
Chloroethane	ND		2.0		ug/L			11/01/11 14:25	1
Chloroform	28		2.0		ug/L			11/01/11 14:25	1
Chloromethane	ND		2.0		ug/L			11/01/11 14:25	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			11/01/11 14:25	1
Ethylbenzene	ND		2.0		ug/L			11/01/11 14:25	1

Client Sample Results

Client: Lewis Environmental Inc
Project/Site: AMEC- Honeywell

TestAmerica Job ID: 450-766-1

Client Sample ID: A3983-10272011-10844

Lab Sample ID: 450-766-3

Date Collected: 10/27/11 00:00

Matrix: Water

Date Received: 10/28/11 10:05

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		2.0		ug/L			11/01/11 14:25	1
Tetrachloroethene	5.4		1.0		ug/L			11/01/11 14:25	1
Toluene	ND		2.0		ug/L			11/01/11 14:25	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			11/01/11 14:25	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			11/01/11 14:25	1
Trichloroethene	160		1.0		ug/L			11/01/11 14:25	1
Vinyl chloride	1.5		1.0		ug/L			11/01/11 14:25	1

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	99		91 - 114		11/01/11 14:25	1
1,2-Dichloroethane-d4 (Surr)	98		85 - 125		11/01/11 14:25	1
Toluene-d8 (Surr)	99		84 - 111		11/01/11 14:25	1
4-Bromofluorobenzene (Surr)	102		86 - 120		11/01/11 14:25	1

Method: 8081A - Organochlorine Pesticides (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-BHC	1.7		0.20		ug/L		10/31/11 08:53	11/01/11 13:21	10
4,4'-DDD	2.0		1.0		ug/L		10/31/11 08:53	11/01/11 13:21	10
4,4'-DDT	2.5		1.0		ug/L		10/31/11 08:53	11/01/11 13:21	10

Method: 8081A - Organochlorine Pesticides (GC) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.037		ug/L		10/31/11 08:53	11/01/11 12:35	1
beta-BHC	0.36		0.20		ug/L		10/31/11 08:53	11/01/11 12:35	1
delta-BHC	ND		0.30		ug/L		10/31/11 08:53	11/01/11 12:35	1
gamma-BHC (Lindane)	0.20	p	0.20		ug/L		10/31/11 08:53	11/01/11 12:35	1
Technical Chlordane	ND		0.50		ug/L		10/31/11 08:53	11/01/11 12:35	1
alpha-Chlordane	ND		1.0		ug/L		10/31/11 08:53	11/01/11 12:35	1
gamma-Chlordane	ND		1.0		ug/L		10/31/11 08:53	11/01/11 12:35	1
4,4'-DDE	0.15		0.10		ug/L		10/31/11 08:53	11/01/11 12:35	1
Dieldrin	ND		0.030		ug/L		10/31/11 08:53	11/01/11 12:35	1
Endosulfan I	ND		0.40		ug/L		10/31/11 08:53	11/01/11 12:35	1
Endosulfan II	ND		0.40		ug/L		10/31/11 08:53	11/01/11 12:35	1
Endosulfan sulfate	ND		0.40		ug/L		10/31/11 08:53	11/01/11 12:35	1
Endrin	ND		2.0		ug/L		10/31/11 08:53	11/01/11 12:35	1
Endrin aldehyde	ND		0.60		ug/L		10/31/11 08:53	11/01/11 12:35	1
Endrin ketone	ND		1.0		ug/L		10/31/11 08:53	11/01/11 12:35	1
Heptachlor	ND		0.30		ug/L		10/31/11 08:53	11/01/11 12:35	1
Heptachlor epoxide	ND		0.20		ug/L		10/31/11 08:53	11/01/11 12:35	1
Methoxychlor	ND		10		ug/L		10/31/11 08:53	11/01/11 12:35	1
Toxaphene	ND		3.0		ug/L		10/31/11 08:53	11/01/11 12:35	1

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	79		14 - 120	10/31/11 08:53	11/01/11 12:35	1
Tetrachloro-m-xylene	61		10 - 117	10/31/11 08:53	11/01/11 12:35	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10		1.0		ug/L		11/01/11 08:55	11/01/11 15:05	2
Lead	8.5		0.96		ug/L		11/01/11 08:55	11/01/11 15:05	2

Lab Chronicle

Client: Lewis Environmental Inc
Project/Site: AMEC- Honeywell

TestAmerica Job ID: 450-766-1

Client Sample ID: A1836-10272011-10844

Date Collected: 10/27/11 00:00

Date Received: 10/28/11 10:05

Lab Sample ID: 450-766-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	2558	11/01/11 13:25	MSL	TAL KOP
Total/NA	Prep	3510C	RA		2487	10/31/11 08:53	ELS	TAL KOP
Total/NA	Analysis	8081A	RA	1	2563	11/01/11 12:04	GMA	TAL KOP
Total/NA	Prep	200.8			2551	11/01/11 08:55	PAM	TAL KOP
Total/NA	Analysis	200.8		2	2595	11/01/11 14:45	RMW	TAL KOP

Client Sample ID: A3966-10272011-10844

Date Collected: 10/27/11 00:00

Date Received: 10/28/11 10:05

Lab Sample ID: 450-766-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	2558	11/01/11 13:55	MSL	TAL KOP
Total/NA	Prep	3510C	RA		2487	10/31/11 08:53	ELS	TAL KOP
Total/NA	Analysis	8081A	RA	1	2563	11/01/11 12:20	GMA	TAL KOP
Total/NA	Prep	3510C	DL		2487	10/31/11 08:53	ELS	TAL KOP
Total/NA	Analysis	8081A	DL	10	2563	11/01/11 12:50	GMA	TAL KOP
Total/NA	Prep	200.8			2551	11/01/11 08:55	PAM	TAL KOP
Total/NA	Analysis	200.8		2	2595	11/01/11 14:50	RMW	TAL KOP

Client Sample ID: A3983-10272011-10844

Date Collected: 10/27/11 00:00

Date Received: 10/28/11 10:05

Lab Sample ID: 450-766-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	2558	11/01/11 14:25	MSL	TAL KOP
Total/NA	Prep	3510C	RA		2487	10/31/11 08:53	ELS	TAL KOP
Total/NA	Analysis	8081A	RA	1	2563	11/01/11 12:35	GMA	TAL KOP
Total/NA	Prep	3510C	DL		2487	10/31/11 08:53	ELS	TAL KOP
Total/NA	Analysis	8081A	DL	10	2563	11/01/11 13:21	GMA	TAL KOP
Total/NA	Prep	200.8			2551	11/01/11 08:55	PAM	TAL KOP
Total/NA	Analysis	200.8		2	2595	11/01/11 15:05	RMW	TAL KOP

Laboratory References:

TAL KOP = TestAmerica King of Prussia, 1008 W Ninth Ave, King of Prussia, PA 19406, TEL (610)337-9992

Certification Summary

Client: Lewis Environmental Inc
Project/Site: AMEC- Honeywell

TestAmerica Job ID: 450-766-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica King of Prussia	New Jersey	NELAC	2	PA004
TestAmerica King of Prussia	Pennsylvania	NELAC	3	46-00505
TestAmerica King of Prussia	USDA	USDA		P330-10-00327

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

1008 W. Ninth Ave

Chain of Custody Record

THE LEADER IN ENVIRONMENTAL TESTING

[illegible]

11/01/2011

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Login Sample Receipt Checklist

Client: Lewis Environmental Inc

Job Number: 450-766-1

Login Number: 766

List Source: TestAmerica King of Prussia

List Number: 1

Creator: Courier, Mt. Laurel

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	False	No seal
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	